Plague and Pox: Contagion, Continuity and Change in municipal responses to epidemics in Frankfurt and Nuremberg (c. 1495–1510)

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In the wake of the siege of Naples in 1495 Europeans began to remark on the appearance of a new illness which was seen to spread through Europe with the returning French, Italian, Spanish, Swiss, and German soldiers and mercenaries. According to contemporary accounts victims of the disease suffered with chancres and pustules, which usually first appeared on the genitalia but later erupted over the whole body. Victims also typically sustained extreme pains in their limbs, particularly at night. One early Germanic witness of the disease, an imperial secretary called Joseph Grünpeck, recorded that soldiers infected during the Italian campaign were in so much agony that they prayed for death. Further symptoms included hair-loss and bone erosion. The disease became known by a number of names, with the ‘French pox’ and ‘great pox’, or variants thereof, becoming the most common.

My PhD explores the medical, social, and emotional histories of the French pox in the free imperial cities of Nuremberg and Frankfurt am Main during the period 1495–1700. Much of this research focuses on the records of the city councils, particularly the Bürgermeisterbücher in Frankfurt and the Ratsverlässe in Nuremberg, both of which record the decisions taken by the councils at each of their meetings. As Annemarie Kinzelbach states, these sources provide valuable insight into the mentality of the governing social group and the factors which influ-

1 Joseph Grünpeck, Libellus Josephi Grünbeckii de mentulagra alias morbo gallico, [Reutingen] 1503, fol. [5v]–[6r], online: ark:/12148/bpt6k61523897.

2 The term ‘Franzosenkrankheit’ or variations thereof is the dominant term used throughout the council records of Frankfurt and Nuremberg for 1495–1700. In other sixteenth-century western European regions terms such as ‘morbus gallicus’ and ‘malfrancese’ were used. Other names used for the disease included, the Neapolitan disease, the Polish disease, and the sickness of Job. On the naming of the disease see Samuel K. Cohn, Jr., Epidemiics. Hate and Compassion from the Plague of Athens to AIDS, Oxford (forthcoming).

3 PhD working title: Contagion, Morality and Practicality. The French pox in Frankfurt am Main and Nuremberg, 1495–1700. This research is supported by a Leverhulme Trust Doctoral Scholarship at the University of Glasgow.
enced their decisions. Through these records along with further sources including archival material from the councils, hospitals, and contemporary printed works, my thesis investigates how municipal authorities and members of urban society (including victims and their social circles) understood and responded to the disease. Furthermore, to better understand the councils’ responses to the French pox, my PhD compares their responses to this disease with those toward leprosy and, in particular, plague epidemics which had threatened late medieval cities.

This paper seeks to examine how the legacy of plague influenced municipal understandings of, and responses toward, the French pox in Frankfurt and Nuremberg. It will demonstrate that the understandings and measures which emerged in response to this new disease fused continuity with innovation and change. This paper also investigates whether the traditional boundary year of 1500 still marks an appropriate border between the middle ages and the early modern period when considered in the context of municipal responses to epidemic diseases.

At this point, it is important to clarify some points surrounding the terminology that I use in this paper, and indeed, in my thesis. Today, the French pox is associated with syphilis, a principally venereal disease caused by the bacterium *Treponema pallidum*. However, questions remain about how the nature of the disease may have changed over time, and it has been suggested that during its earliest period in Europe, until circa 1520–1550, it was more aggressive, and killed victims more rapidly and perhaps more frequently than modern syphilis.

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5 There are also many important comparisons to be made with leprosy, as discussed in the workshop, which will be explored in my forthcoming thesis.

6 In the version of the paper presented at the *Stadt des Mittelalters* workshop on 9 Nov. 2017 I proposed that the reactions to the pox suggested that 1500 was an arbitrary border when considering responses to epidemic disease. Discussion of the material at the workshop, however, convinced me that, in the cases of Frankfurt and Nuremberg, the responses to the pox actually illustrate an epochal shift. I am sincerely grateful for all of the feedback received on this and other points in the paper at the workshop.

7 Gabriella Eva Cristina Gall, Stephan Lautenschlager and Homayoun C. Bagheri, Quarantine as a public health measure against an emerging infectious disease: syphilis in Zurich at the dawn of the modern era (1496–1585), in: GMS hygiene and infection control 11 (2016), p. 2; Natasha Arora et al., Origin of modern syphilis and emergence of a pandemic *Treponema pallidum* cluster, in: Nature Microbiology 2 (2016), pp. 1–11; Annemarie
Moreover, the term ‘syphilis’ is loaded with eighteenth- and post-eighteenth-century understandings of the disease, generated through medical-scientific research and cultural interpretations which stigmatised the disease, female sexuality, homosexuality, and other lifestyles and behaviours which were then perceived as non-normative or immoral. This was seen for instance in the deeply misogynist 1864 Contagious Diseases Act in Britain, which permitted the forced and invasive inspection of women suspected of prostitution (often with little or no evidence). These attitudes are further reflected in twentieth-century public health campaigns in Europe and the United States, and cultural depictions such as Richard Tennant Cooper’s painting below (Image One).

Thus, in this paper, following the arguments of historians including Claudia Stein and John Henderson I will be using the fifteenth- and sixteenth-century term ‘French pox’ or ‘pox’ to reflect the concept outlined by Stein that a disease is ‘a socio-cultural construct specific to a particular scientific and socio-cultural setting at a given time’.  This is an especially important concept when considering the French pox in the late fifteenth and sixteenth centuries,

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as during this period many believed that the disease had both sexual and non-sexual means of transmission.

Before further considering contagion theories, I think that it is first necessary to ask - where did plague and pox come from? Or rather, what origin theories did contemporaries have to explain the appearance of these diseases? The ultimate origin of both diseases through the medieval period and well into the sixteenth century was believed by many, if not most, to be God. Both of these illnesses were often interpreted as punishment for sin; sometimes individual sin, or sometimes the sins of society as a whole. On 7 August 1495 the Holy Roman Emperor, Maximilian I, issued his Mandat gegen Gotteslästerung which stated that God sent famine and disease to punish sin and as a response to the current immorality in the Empire he had sent the new disease the ‘bösen blattern’ (evil pox). This interpretation of God as the cause of the pox is quite persistent, and medical authors often mention it at the beginning of their works on the disease. Similarly, as Samuel Cohn has shown ‘the sixteenth-century physician almost invariably began with God and man’s sins as plague’s first cause’. Many plague and pox texts follow a standard organisation, spending little space on universal causes and merely repeating the truism that God's vengeance was the ultimate origin of the disease.

Nonetheless, whilst both diseases were seen as punishments from God, an interesting contrast appears in the municipal measures enacted to attempt to appease God and relieve the community. In Frankfurt, the Bürgermeisterbücher record that in the years 1461, 1505, 1507 and 1519 prayer services and religious processions prompted by the plague were organised in the city. However, I have found no records of such processions or services in either city for the pox during the pre-, or post-Reformation period. The reason for this difference is not clear. I suggest that one potential explanation is the divergence in the severity and duration of these epidemics. Plague could appear suddenly, appeared to kill victims of all ages, genders and

10 Samuel K. Cohn, Jr., Cultures of Plague. Medical Thinking at the End of the Renaissance, Oxford 2011, p. 78.
11 Cohn, Cultures of Plague (as footnote 10), p. 78.
12 Werner Moritz, Die bürgerlichen Fürsorgeanstalten der Reichsstadt Frankfurt im späten Mittelalter (PhD thesis, Johann Wolfgang Goethe-Universität), Frankfurt am Main 1977, p. 106.
social levels without any discrimination; it killed quickly, and could spark soaring mortality rates. Pox, in contrast, did not arrive in waves, but instead arrived and became endemic, it did not usually kill quickly. As the sixteenth century progressed it increasingly came to be considered a curable disease, with victims generally being seen as having a far better chance at recovery than those infected with plague. Thus, despite the many measures enacted by the cities, plague was very difficult to control, and therefore, at least in the pre-Reformation period, cities having made every attempt they could to contain it, were perhaps more likely to turn to religion in search of a divine cure. The French pox, in contrast, increasingly became seen as a disease which could be controlled through human effort alone. Discussion at the workshop also brought forward the idea that it may be that the pox was seen as punishment for individual sin, and thus it was not the responsibility of society to ameliorate God’s wrath in this case. Plague, on the other hand, was more likely perceived as punishment for collective sins and thus as a disease that required a collective religious response.

13 However, during its earliest years it seems that the disease was capable of killing more rapidly than modern syphilis.
Divine displeasure was seen as the ultimate origin of both diseases, but how were they believed to spread on the terrestrial realm? From the outset Europeans realised that the pox was spread through sexual intercourse. The Venetian doctor Alexandri Benedicti was one of the earliest medical men to encounter the disease when he served at the Battle of Fornovo on 5 July 1495 and he wrote that he believed that the disease was spreading through ‘sexual contact’.

However, the disease was not perceived as an exclusively venereal one. Many medical thinkers also believed that the pox could spread through non-venereal mechanisms, and these theories corresponded closely with those on the spread of plague. Plague tracts usually attributed the terrestrial cause of plague to poisonous vapours, which could be caused by a range of factors including changes in climate, or the presence of ‘corrupt matter’, such as

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decaying corpses or stagnant and polluted water. The ‘atoms’ of these vapours penetrated the body, affecting individuals based on their constitution (their humoral balance, age, sex, social conditions, and so on). Close proximity or contact with an infected person was perceived as highly dangerous and, in some European cities, led to quarantining of whole households when one member became infected. It was also feared that plague could spread through infected goods such as clothing or bedding. During the fourteenth and fifteenth centuries some European cities, particularly in Italy, began enacting measures in an attempt to stop, or at least curb, the spread of plague. These included rapid burial of the dead, restrictions on trade, the quarantining and disinfection of clothes that had been in contact with plague victims, inspections of homes, and measures for the containment and welfare of the sick poor.

Examining Italian works on the pox Jon Arrizabalaga, John Henderson and Roger French, have illustrated the medical thinking which allowed the French pox to simultaneously possess both sexual and non-sexual forms of transmission in contemporary theory. For instance, the papal physician Gaspar Torella believed that the pox was transmissible by touch or via the air over short distances. Pere Pintor, the personal physician of Rodrigo Borgia (Pope Alexander VI), warned the readers of his Tractatus de Morbo that the pox was pestilential, and that to avoid it they should ‘Go away quickly, stay there a long time, and come back slowly’; advice that very closely echoes thinking on plague. However, both Torella and Pintor thought that the pox’s most frequent means of transmission was via sexual contact. Nevertheless, it remains clear that medical authorities thought pox was capable of non-venereal transmission. Arguably, one reason for the fears surrounding the disease's modes of communication was its very rapid spread; it had arrived in Scotland by 1497 and Russia by 1499. It is also worth noting that sexually transmitted diseases, like the so-called ‘burning sickness’ (likely gonorrhoea) had existed in Europe before the advent of the pox. However, these were less aggressive, and, it seems, did not appear in a sudden pandemic wave.

15 Cohn, Cultures of Plague (as footnote 10), pp. 77–78.
17 Arrizabalaga, Henderson and French, The Great Pox (as footnote 8), pp. 113–126.
The concern surrounding the non-venereal transmission of the pox seen in medical texts is perhaps even more evident in lay responses to the disease. In non-medical literature only half of the sixteenth-century chroniclers investigated by Arrizabalaga et al associated the disease with sexual transmission.\(^\text{18}\) This interpretive pattern appears to have persisted in Germanic regions. Joseph Grüneck, wrote in 1496 that ‘Many look upon the sickness as a lesser leprosy; others think it belongs to the group of pestilential diseases’.\(^\text{19}\)

Regarding the French pox, it is in the municipal responses to this disease that the concerns surrounding airborne and non-venereal transmission are clearest and had their greatest impact. These concerns were witnessed in a number of European cities.

In Edinburgh, in 1497, James IV issued his ‘Grandgore Act’, which ordered that all those suffering with the pox were to be quarantined on the island of Inch Keith in the Firth of Forth. Those who failed to do so would be branded with hot iron and banished.\(^\text{20}\) In Rome in 1515 Pope Leo X issued the bull *Salvatoris nostri domini Iesu Christi* which declared that the city was overflowing with sick poor suffering from ‘various incurable diseases’, including the pox.\(^\text{21}\) Because these individuals posed a threat to municipal health by begging in public spaces, they were to be admitted, or forcibly taken, to the city’s hospitals, with the San Giacomo in particular to take those with the pox.\(^\text{22}\) In early sixteenth-century Aberdeen, Venice, and Florence there is further evidence for anxieties surrounding the non-venereal transmission of the pox and measures imposed to halt this transmission.\(^\text{23}\)

In Frankfurt and Nuremberg we witness a similar anxiety. On 9 August 1496 the official city doctors in Frankfurt recommended that because the disease was now visible in the city, a

\(^{18}\) Arrizabalaga, Henderson and French, The Great Pox (as footnote 8), p. 35.


\(^{20}\) ms. Edinburgh, Edinburgh City Archive, Edinburgh Town Council Minutes SL1/1/1 1456, fol. 33–34.

\(^{21}\) Leo X, *Salvatoris nostri domini Iesu Christi*, [s.l.] 1515, p. [1], online: http://reader.digitale-sammlungen.de/de/fs1/object/display/bsb10162321_00003.html.

\(^{22}\) Leo X (as footnote 21), p. 2; Arrizabalaga, Henderson and French, The Great Pox (as footnote 8), p. 156.

record of all of those infected ought to be compiled and given to the council, so that the poxed could be separated from the healthy community. Two days later it was decided that the plague hospital, the Pesthaus, which was then vacant, was to be prepared to receive the sick. This, of course, echoes quarantine measures enacted in times of plague. When an inhabitant died of plague members of their household were ordered not to visit the Frankfurt council for four weeks, a practice that began in the fifteenth century and was cemented in a statute in 1502. Similarly, in 1498, the Frankfurt Rat (city council) ordered that Clansen Schellen was forbidden from attending meetings until it was known if he was afflicted with the pox, his wife and child having being diagnosed with the disease around six months previously. The restrictions on movement and quarantining of the sick demonstrate that the council took the non-venereal theories of the pox very seriously. Secondly, it shows that quarantine, a measure which had been enacted for both leprosy and plague, continued to be perceived as the first, and most effective, way of containing the spread of an epidemic.

In Nuremberg too, in 1496, such measures were enacted, and the council ordered that those afflicted with the ‘malafranzoß’ were to be quarantined in the Heilig Kreuz hospital, located outside of the city’s walls. Later that year a further statute was entered into the Ratsverlässe, forbidding those with the ‘franzosen vnd pestelenz’ from entering the city, clearly associating these as highly contagious diseases. In addition, the Nuremberg council also wrote to the Bamberg Rat, enquiring as to whether they believed that the disease might be spread through infected pork meat. This also shows a link with earlier theories surrounding transmission of plague, as pigs, frequently perceived as filthy and unsanitary animals, were often banished from cities during times of pestilenz. In my research I have not found any council

25 ms. Frankfurt, BB. No. 66 (1496), fol. 33v.
26 Moritz, Die bürgerlichen Fürsorgeanstalten der Reichsstadt Frankfurt (as footnote 12), p. 106.
28 ms. Nuremberg, Staatsarchiv Nürnberg (hereafter StAN), Verlässe des Innern Rats (hereafter RV) No. 336, fol. 7v.
29 ms. Nuremberg, StAN, RV No. 350, fol. 6v.
30 ms. Nuremberg, StAN, RV No. 336, fol. 9v.
record in Frankfurt or Nuremberg from the entire sixteenth century which in any way suggests that the pox’s contagion was perceived as principally or singularly venereal. Clearly there is a continuity in municipal understandings of non-venereal forms of contagion between the two diseases and in the use of quarantine measures against them (although there were also differences on this point, as discussed below). We can also see a correspondence with leprosy; both cities possessed institutions for the isolation of lepers and had also enacted regulations on their movements.

However, as seen with religious responses, there are also important differences between the measures taken against both diseases. Firstly, whilst restrictions on trade were imposed in times of plague through the fifteenth and sixteenth centuries, no such restrictions ever appear for the pox. The reason for this likely relates to contagion theories, whilst medical authorities warned against sharing a bed, eating utensils, or clothes with an infected person, they do not seem to have considered the disease quite as aggressively infectious as plague and never warned specifically against traded goods. Plague had a greater potential to disrupt the local economy as goods could not enter or people could not travel to markets elsewhere when plague broke out. That said, the Frankfurt Rat repeatedly closed the city’s Roten Badestube (Red Bathhouse) due to fears that the pox was spreading there.\(^{31}\) Entries in the Bürgermeisterbücher, as well as letters to the Rat, show that this caused significant economic hardship for the owners, who were indeed suffering from the pox by 1501.\(^{32}\) The combination of ill health and financial hardship precipitated a change of ownership by 1502. A further contrast occurs in Nuremberg, where, during the late fifteenth and early sixteenth century, the Ratsverlässe record that the council occasionally allowed some poor pox victims to beg in a designated place, usually near a church, on a specified date. Such measures are never seen for plague victims likely because, once infected, victims would become too sick to beg and often died quickly. Along with the absence of restrictions on trade, this may also further indicate that the pox was not seen as quite as aggressively contagious as plague.

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\(^{31}\) From the entries in the Bürgermeisterbücher it appears that the council was concerned that the disease was spreading through non-venereal mechanisms in the bathhouse.

\(^{32}\) ms. Frankfurt, ISG, BB. No. 67 (1497), fol. 27r, 54v, 85r, 88v, 89v, 106r, 116r.
Since outbreak of the Black Death in 1347, European societies had been dealing with recurring plague epidemics. In an attempt to manage the threat posed by the disease, during the period 1423–62 eleven different cities in northern and central Italy passed legislation to establish isolation hospitals, and eventually the vast majority of Italian cities had established such institutions, often called lazaretti. In contrast, in Frankfurt and Nuremberg plague hospitals developed significantly later, even though both cities experienced significant epidemics throughout the fifteenth century. Frankfurt’s Pestilenzhaus was not established until 1492–93. In Nuremberg, after receiving a bequest from a wealthy citizen, the Sebastianspital was established in the period 1498–1528 to house those afflicted with plague.

With the arrival of the pox however, the case is reversed. Frankfurt and Nuremberg, along with a number of other German cities identified by Robert Jütte rapidly designated institutions or spaces within institutions for the exclusive containment of the poxed, with many appearing in the years before the turn of the fifteenth century. In Italy, however, Gaspar Torella wrote, circa 1500 that:

*Neither the Pope nor the Emperor and not even kings and other princes or lords have done anything to combat this disease; it would certainly be simple in the cities to elect ancient matrons to seek out these sick people (including prostitutes) and with the authority of the secular arm to separate them from those who are not sick, placing them in a house or hospital so that they are treated by physicians.*

In Genoa in 1499 the Compagnia del Divino Amore designated the Ridotto hospital as a place for the treatment of the ‘incurable poor’, they did not specify what diseases this encompasses.

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35 Arrizabalaga, Henderson and French, The Great Pox (as footnote 8), p. 34.
but Arrizabalaga, Henderson and French suggest that they included those with the pox.\footnote{Arrizabalaga, Henderson and French, The Great Pox (as footnote 8), p. 147.} However, whilst some Italian institutions may have set aside wards to treat the new disease, no further institutions for *incurabili*, nor any specifically for the poxed, were established in Italy until the period 1515–1526, which saw the foundation of seven *Incurabili* hospitals and at least three specialised wards.\footnote{The hospitals were established in Rome (1515), Naples (1519), Florence (1521), Brescia (1521), Venice (1522), Ferrara (by 1525) and Padua (1526). Arrizabalaga, Henderson and French, The Great Pox (as footnote 8), p. 153.} It is also notable that the stated focus of these institutions was far less specific, though they certainly took in pox victims, than the designations in Frankfurt and Nuremberg.

What was it that prompted the rapid development of institutions and spaces for the poxed in Germany? And why did the Italian cities, pioneers of plague hospitals, lag so far behind? Is it possible that the German cities had learned from their slow development of plague hospitals? It is possible to suggest that the Italian *Incurabili* took longer to develop as they were not established by the city governments but rather by independent confraternities, such as the federation of the Companies of Divine Love. What is clear however, is that the history of European medical institutions for the treatment of epidemics and contagious diseases, is far from teleological and does not progress in a neat narrative of continual development from the medieval to early modern period. In Frankfurt and Nuremberg we see a turning point in the latter years of the fifteenth century, with the development of the pox and plague institutions. Yet this is not a model that neatly fits across Europe. Moreover, my recent research, particularly in Nuremberg, has shown that the pox institutions were far from stable fixtures. The disease's victims were repeatedly moved between institutions during the sixteenth and seventeenth centuries, with the *Franzosenhaus* undergoing periodic closures.
Plague and pox were not exclusively problematic; they also provided city authorities with the opportunity to exert and increase their social power. A persistent issue throughout plague epidemics, and with the arrival and endemic spread of the pox was how to deal with the sick poor. In Italy in 1527 Niccolò Machiavelli, talking about plague, wrote that ‘The clean and beautiful neighbourhoods [of Florence] which are usually full of rich and noble citizens, now are stinking and ugly, full of the poor whose fearful clamours make it difficult to walk.
through the street’. Such sentiments were echoed in other cities, and as already observed Leo X’s *Salvatoris Nostri* used this threat to public health to justify the forcible institutionalisation of incurable poor. In Frankfurt and Nuremberg itinerant poor, individuals not originally from these cities, with either disease were forbidden from entering, and, following the arrival of the pox, it was ordered that any non-native beggars found within the walls were to be expelled. By emphasising the threat that the poxed poor posed to the healthy community, the councils were able to abdicate any responsibility toward the so-called “undeserving” poor who were perceived as lazy and immoral vagabonds who preyed on the charity of good cities and citizens.

Finally, if using the French pox alone we were to seek a boundary between historical epochs, then we may have to look much further forward than 1500. It is only in the second half of the seventeenth century, during the 1680s and 1690s that the records of the inspections of individuals for entry into Nuremberg’s *Franzosenhaus* begin to show a shift in terminology. Until the late seventeenth century these records persist in referring to the disease by its early names, *morbo gallico* and *Franzosenkrankheit*, and it is only during the final twenty years of the century that the term *Lues Venera* (the venereal disease) also begins to appear in admission decisions and municipal records. Often, indeed, the old and the new terms appear together in the one document. But even then, we cannot say that this marks a consistent movement from one period to another. In the medical literature published on the disease, the shift takes place much earlier, with many authors utilising the term *Lues Venera* during the early 1600s.

It has long been acknowledged that Europeans, or the world indeed, did not go to sleep in the “dark” of the middle ages in 1499 and suddenly wake up in the “light” of 1500 and the early modern age. There are considerable continuities, and also changes between these periods. I was very grateful to be given the opportunity to present this paper because the theme of the

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38 Henderson, Coping with Epidemics in Renaissance Italy (as footnote 33), p. 183.
workshop led me to reflect on how the histories of medical theory and urban responses to disease can be used to explore and reflect on the imposition of the year 1500 as a boundary between the medieval and early modern periods. Between these periods, between plague and pox, there are significant continuities. This is seen particularly with the attribution of the ultimate cause of disease to God and sin and also the persistence of non-venereal contagion theories, founded in Galenic-Hippocratic medical thinking, and the centrality of the quarantine measures that these provoked. Yet, around 1500 we do also see important changes in Frankfurt and Nuremberg, most importantly their swift establishment of pox institutions.

So, based on my research, is 1500 the right border between medieval and modern? As observed at the beginning of this paper, it is an arbitrary imposition. In the search for periodisation we could point to milestones in medical theory such as the change to iatrochemical and iatromechanical medical thinking, or the laboratory revolution and the eventual isolation of the *Treponema pallidum* bacterium in the early twentieth century. Yet, medical theory is not always reflected in the lay sphere, where older beliefs can be persistent. And, as I hope this paper has demonstrated, when we narrow our focus onto urban cases, we discover complex narratives of continuity and change. However, in the specific cases of Frankfurt and Nuremberg the period 1495–1510 certainly saw important developments in the response to epidemics provoked largely by the French pox.