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Arrival From Abroad: Plague, Quarantine, and Concepts of Contagion in Eighteenth-Century England

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**Arrival from Abroad:
Plague, Quarantine, and Concepts of Contagion in Eighteenth-
Century England**

Senior Thesis

Presented in Partial Fulfillment of the Requirements for Graduation
In the Undergraduate History Program of the University of Washington
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By

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Advisor: Dr. Michael Kucher

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Abstract

The isolation and separation of infected individuals in response to epidemics has persevered throughout history as an effective public health measure. Since the devastation of the Black Death during the fourteenth century, major European cities continued to institute various forms of quarantine in order to address the threat of plague. Following the Great Plague of London in 1665-66 – the last major outbreak of bubonic plague to occur in England – the country had no way of knowing it would never again be visited by the disease in its epidemic form. In the eighteenth century, Parliament took measures aimed at preventing outbreaks of infection from abroad – primarily, through the institution of a rigorous maritime quarantine system. This decision ultimately came about as a result of the standard medical rhetoric of the age, that plague in its epidemic form was much easier to prevent than it was to control. Theories of contagion advanced by English physician Dr. Richard Mead (1673-1754), on which the government's activity was largely based, were received with dissatisfied medical and communal responses. Yet quarantine, even in its contemporary form, in no way remains free of controversy. In the case of plague, effective preventative measures could not be entirely understood until the epidemiology of the disease had been fully worked out. This essay examines the impact of eighteenth century medical discourse and theories of contagion asserted specifically by Dr. Mead in shaping maritime quarantine protocol in England.

Introduction

Following London's Great Plague in 1665-66, the recession of epidemic plague in the United Kingdom had arrived. Despite a continued appearance of the disease throughout the continent of Europe, and an overall absence of a uniform maritime quarantine policy for roughly forty years following the last pestilential sweep, England managed to evade a widespread outbreak of the contagion indefinitely. However, in response to outbreaks of plague in the Mediterranean during the eighteenth century, Parliament enacted a rigid seafaring isolation system for receiving foreign trade – the recent nonexistence of widespread plague in England notwithstanding. After nearly half a century of plague's cessation in the country at the closure of London's Great Plague, and quarantine's previously failed attempts at successfully preventing the introduction of an epidemic in the port city of Yarmouth in 1636, England decided to enforce its first uniform quarantine policy in 1710. These policies grew increasingly more stringent throughout the eighteenth century, despite a lack of plague ever reentering the Kingdom of Great Britain.

Prior to the seventeenth century, England lacked a consistent technique for regulating contact with foreign seaports.¹ It was not until 1629 that Parliament made an attempt to initiate an orderly system in response to the Italian Plague of 1629-31, and again during a subsequent outbreak of the pestilence in France and the Low Countries in 1635.² Unlike the previously impromptu quarantine measures implemented in England during the sixteenth century, the Privy Council now ordered customs officials to decline or isolate infected ships upon their arrival, yet these methods failed to prevent an epidemic of plague from erupting in England the following

¹ Paul Slack, *The Impact of Plague in Tudor and Stuart England*. (London: Routledge & Kegan Paul, 1985), 221.

² Ibid.

year.³ In 1655, a surge of plague in the Netherlands prompted Parliament to reestablish these quarantine measures yet again. But after nearly a decade without any reliable trace of the pestilence, the infamous Great Plague of London — the last major outbreak of bubonic plague to occur in the United Kingdom — first struck the district of St. Giles in 1665 and went on to kill an estimated 100,000 people, about 15% of London’s population.⁴

Owing to modern science, the etiology of bubonic plague is known to stem from *Yersinia pestis*, a highly infectious bacterium transmitted from rodents — specifically, the black (*Rattus rattus*) or prairie dogs (*Cynomys*) — to other animals, primarily by way of infected Oriental rat fleas (*Xenopsylla cheopis*).⁵ Infected fleas leave the bodies of rodents that have been killed by the bubonic plague bacteria, and in desperate need of a new host, may bite and infect humans. This indirect method of transmission is known to be the most common between rodents and humans, although, humans may also subsequently become infective to other people.⁶ However, given the absence of this knowledge during the eighteenth century, government measures taken in England to control the spread of plague were primarily aimed at the prevention of human-to-human transmission.⁷ In addition, no endemic instances of plague in Britain had been known, and thus, it was inferred that the infection had to have been imported whenever an epidemic occurred. After an outbreak subsided, plague needed to be reintroduced from abroad and British ports in particular — such as London and Yarmouth — played a significant role in facilitating that process.⁸ Therefore, the prevention of ships and merchandise being imported from aboard, especially from other infected cities or countries, became an immediate aim of the English

³ Ibid.

⁴ Lloyd Moote & Dorothy C. Moote, *The Great Plague: The Story of London’s Most Deadly Year*. (Baltimore, MA: The Johns Hopkins University Press, 2004), 11.

⁵ David T. Dennis et al., “WHO Plague Manual: Epidemiology, Distribution, Surveillance and Control.” (1999): 63.

⁶ Ibid.

⁷ Slack, *The Impact of Plague in Tudor and Stuart England*, 313.

⁸ Ibid.

government in order to potentially hinder the spread of plague throughout the kingdom. The decision to initiate a systematic method for the detention of these ships arriving from infected areas stemmed from the medical opinion that it was easier to enforce quarantine measures than it was to control plague once it progressed into an epidemic.⁹ Therefore, in response to a rise of plague infection in the Baltic Sea region during the Great Northern War (1700-1721), the English government opted to react promptly by implementing the Quarantine Act of 1710 – the first systematic approach aimed at preventing the introduction of plague from abroad – more specifically, by way of infected ships or vessels.

Methodology

The focus of this paper will be to examine the impact of maritime quarantine practices on eighteenth century English law, particularly in the context of early modern theories of contagiousness, which not only influenced government protocol, but also initiated a genre of medical texts that began to question the capability of empirical evidence to effectively determine the appropriate preventative measures against infectious diseases such as plague. Furthermore, this paper will aim to uncover the ways in which one physician in particular – Dr. Richard Mead (1673-1754) – directly influenced quarantine law through the publication of his treatise, *A Short Discourse Concerning Pestilential Contagion, and the Method to be used to prevent it* (1720). Throughout this essay, I will examine an array of eighteenth century medical tracts that coincide with the establishment of Great Britain's first standardized maritime quarantine system, as well as those that challenged Dr. Mead's arguments with regard to disease transmission and the role of commerce in spreading plague. In addition to these discourses, this paper will also incorporate

⁹ Ibid.

civic responses relevant to the repercussions of the maritime quarantine policies directly influenced by Mead, with an emphasis on the reactions of influential English writer Daniel Defoe.

Within the scholarship, a plethora of works on the subject of the Black Death and other subsequent epidemics of bubonic plague refer to the disease as a formidable and devastating affliction. Specifically with regard to the effects of plague on early modern quarantine, one such author, Kira S.L. Newman, discusses England's rigorous adoption of isolation policies in response to an outbreak of plague during the seventeenth century, at a time when quarantine was very new to the country. In her work, "Shutt Up: Bubonic Plague and Quarantine in Early Modern England," Newman states, "Throughout outbreaks, the government asserted that plague control measures were acts of public health for the benefit of all. However, contrary to this government narrative of disease prevention there was a popular narrative that portrayed quarantine and isolation as a personal punishment rather than prudent policy."¹⁰ Although Newman refers specifically to the reception of English quarantine policy in the seventeenth century, this overall attitude persisted well into the eighteenth century as well, in response to the government's decision to implement the first systematic maritime quarantine guidelines.

Author Paul Slack provides an informative overview of the effects of plague in early modern England, highlighting its profound social impact on the country. Slack ultimately conveys this aspect of plague as a product of the inefficiency of early modern government, focusing on basic issues of civic responsibility and government authority that remained unresolved in the face of various outbreaks of the disease throughout the country. Slack explains, "At this stage, English government copied without question the more rudimentary regulations

¹⁰ Kira S. L. Newman, "Shut Up: Bubonic Plague and Quarantine in Early Modern England," *Journal of Social History* 45, no. 3 (2012): 810, accessed January 15, 2014, <http://jsh.oxfordjournals.org>.

common in Northern Europe.”¹¹ Enthusiasm for these procedures, Slack argues, may have been adopted from foreign countries, but the methods employed by the English government were not, which caused them to remain expensive and inconsistent.¹²

Advancing into the eighteenth century, author Arnold Zuckerman highlights the influence of English physician Richard Mead in advancing theories of contagion alongside his contribution to the alteration of English quarantine law. In his work “Plague and Contagionism in Eighteenth-Century England: The Role of Richard Mead,” Zuckerman states, “At the time when Mead wrote his *Short Discourse*, a number of related works became available to the English public, but none furthered an understanding of the plague beyond what had been known in 1665. The emphasis in 1720 was on prevention, not cure.”¹³ In an absence of modern scientific knowledge, this eighteenth century rhetoric of prevention appeared in various responses to Mead’s work as well, published by physicians and other professionals looking to challenge the accuracy of his advice. Zuckerman’s work provides an understanding of Mead’s overall contribution to medicine and contagionist theories in particular, assessing the physician’s various works and accomplishments in great detail.

The remainder of this work will seek to explore the impact of eighteenth century medical discourse and theories of contagion asserted by Dr. Richard Mead in shaping maritime quarantine protocol in Great Britain. Furthermore, this work will examine various responses to Mead’s work, *A Short Discourse*, in order to convey the general dissatisfaction many physicians and contagionists felt with regard to the doctor’s advice. Lastly, this paper will focus on several aspects of public responses to quarantine policies, and the impact these procedures had in

¹¹ Slack, *The Impact of Plague in Tudor and Stuart England*, 208.

¹² *Ibid.*, 46.

¹³ Arnold Zuckerman, “Plague and Contagionism in Early Modern England: The Role of Richard Mead,” *Bulletin of the History of Medicine* 78, no. 2 (2004): 280, accessed December 30, 2013, <http://muse.jhu.edu>.

shaping civic frustration toward the authority of the English government.

Plague and Quarantine Throughout History

The practice of quarantine – a place or period of separation and restriction of individuals that have been exposed to an infectious disease – has existed since the writings of the Old Testament (Leviticus 13). Health control measures regarding the examination and isolation of leprosy victims appear in the Hebrew Bible, and also suggest urgency in burning articles of clothing belonging to the infected.¹⁴ Periods of isolation often varied, but referred primarily to lepers and those suffering from plague. During a pandemic of bubonic plague in 549 AD, (also known as Justinian’s Plague), Byzantine Emperor Justinian enacted laws aimed at isolating persons arriving from regions overrun with the infection.¹⁵ However, it remained difficult to enforce a practical system of quarantine during the sixth century given the complications of having to determine genuinely healthy individuals from those that merely appeared to be, and yet, given the absence of effective pharmaceuticals and epidemiological knowledge, quarantine remained the only effective prevention method against infectious disease.¹⁶

The concept of structured quarantine as we know it today did not emerge until the fourteenth century, during a subsequent pandemic of bubonic plague –the notorious Black Death. In 1348, Venice implemented this formal system, which required ships to remain in the Venetian Lagoon for a period of thirty to forty days before they were allowed to dock, and served as a model for other European countries in the following centuries.¹⁷ In 1403, Venice

¹⁴ *International Encyclopedia of Public Health*, “Quarantine Through History,” by A.A. Conti, (Gale Virtual Reference Library), accessed January 2, 2014, <http://go.galegroup.com>.

¹⁵ Ibid.

¹⁶ Ibid.

¹⁷ Ibid.

implemented lazarettos – maritime quarantine stations – that were later established on the island of Sardinia and in the Italian port city of Genoa.¹⁸ The word ‘quarantine’, which originates from the Italian *quarantina* or *quaranta dei* (forty days), designated the length of time for the detainment of persons or ships before being allowed to enter a certain region. The precise root of the duration is unknown, but is attributable to several significant causes ranging from the forty-day fasting period of Lent, to the length of incubation medical professionals believed plague may lie dormant in the human body. In terms of commerce, merchants took a slightly different approach by saying the economics of market prices influenced quarantine.¹⁹ In an attempt to prevent plague from striking throughout various trade routes across Europe and Asia, tradesmen determined that a period of quarantine longer than forty days on merchandise caused prices to fluctuate and marketplace merchants to grow anxious.²⁰

During the sixteenth century, European ports became commonplace due to the rise and development of maritime trade. In addition, the system itself saw an influx of new and more standardized methods, such as the appointment of administrators and the beginning of ‘foul’ and ‘clean’ bills of health.²¹ Customs officials deemed these certifications ‘foul’ if one or more crewmembers became ill while on board an incoming ship. If no passengers took ill during transport, and were not arriving from an infected area, officials granted these ships with ‘clean’ bills of health, allowing them to bypass quarantine and dock immediately.²² With the introduction of a quarantine station in the port of Marseilles, France as well as others during the sixteenth century, theories of contagion advanced simultaneously and influenced many of the

¹⁸ Ibid.

¹⁹ Ibid.

²⁰ Peter Johnson, *Quarantined: Life and Death at William Head Station, 1872-1959* (Victoria, BC: Heritage House Publishing Co, 2013), 17.

²¹ Conti, “Quarantine Through History,” 456.

²² Aparna Nair, “An Egyptian Infection: War, Plague and the Quarantines of the English East India Company at Madras and Bombay, 1802,” *Hygiea Internationalis* 8, no.1 (2009): 7-8, accessed February 21, 2014, <http://academia.edu>; Conti, “Quarantine Through History,” 459.

additional guidelines put into place for isolating ships. In particular, the concept of contagion propagated the possibility that delicate, textile materials such as wool and cotton preserved the ‘effluvia’²³ of infection, just as they were able to retain perfume and other aromas, thus serving to progress the rationale behind many of the newly adopted quarantine measures like the detention and airing out of cargo.²⁴

However, due to the ambiguity of infectiousness in combination with a lack of stringent policies to enforce such demands, merchants and other incoming passengers widely ignored these methods. In order to ensure that incoming ships adhered to quarantine policies, England in particular, shifted toward exacting a more systematic approach. In an attempt to keep the contagion from spreading, the Privy Council issued a list of Plague Orders in 1578 – a series of regulations that served as England’s first uniform plague policy. These Orders involved the shutting up of both sick and healthy individuals in infected homes for a period of up to six weeks.²⁵ Also, these procedures instructed households suspected of plague to hang a bundle of straw from their window, and to carry a white rod when out in public for a period of up to forty days, signifying their contagiousness to others.²⁶ Until the second half of the seventeenth century, entire families, regardless of whether they were sick or healthy, succumbed to a forty day household incarceration simply if one family member showed symptoms of plague. It was not until the Great Plague of 1665 that the healthy were granted the ability to be separated from the sick during the isolation period.²⁷

During the seventeenth century, Europe began to adopt health measures that specifically addressed the presence of plague in private households. By 1631, London was developing

²³ The outflow of material particles too subtle to be perceived by touch or sight; “Effluvium, N.” *OED Online*. Oxford University Press, accessed March 4, 2014, <http://www.oed.com>

²⁴ William H. McNeill, *Plagues and Peoples* (New York: Quality Paperback Book Club, 1993), 238.

²⁵ Slack, *The Impact of Plague in Tudor and Stuart England*, 221.

²⁶ *Ibid.*

²⁷ *Ibid.*, 170.

rapidly, rendering it highly unmanageable in terms of accelerated poverty and plague.²⁸

Therefore, under the instruction of the monarch's Privy Council, the city's Lord Mayor and town councilors appointed watchmen to guard infected houses.²⁹ When plague broke out in Yarmouth in 1636, the process of quarantine was still relatively new, despite the methods already in place for shutting up infected houses. Massive devastation and rapid death rates during the infamous Great Plague in 1665 led to an overall abandonment of quarantine practices, despite the Plague Orders put into effect during the previous century. Many citizens fled for the duration of the Great Plague, but the poor that could not afford to, remained. The city issued *cordon sanitaires* – a method adopted from France using guarded, 'sanitary lines' – to prevent individuals from communicating with infected towns, while the presence of watchmen stationed outside of infected households continued. As established in the Plague Orders of 1578, England's uniform policy dealt primarily with the shutting up of infected homes, but the country lacked any systematic procedures concerning maritime quarantine. With the worsening of continental plague in 1664, the Privy Council ordered ships and vessels entering the Thames estuary to undergo a forty-day quarantine. By 1665, the rapid progression of plague along with contagionist theories regarding disease transmission by way of person-to-person contact led all trade and business within London to eventually come to a halt.³⁰ At the height of the epidemic, the city's streets remained largely deserted aside from hopeless victims and those that had already perished.

Miasma Theory and Concepts of Contagiousness

²⁸ Ibid., 10.

²⁹ John Walter and Roger Schofield, *Famine, Disease and the Social Order in Early Modern Society* (Cambridge: Cambridge University Press, 1991), 170.

³⁰ Ibid., 173.

As a result of the devastation the Great Plague inflicted throughout London and other parts of the country, subsequent and more sporadic cases of infection continued to cause tremendous anxiety, especially when epidemics occurred in nearby regions. The physiological ambiguity of the disease not only generated an expeditious response from the English government, but also brought about a plethora of medical doctrines and public reactions – some in favor of and others against Parliament’s new and more rigorous quarantine policies. During the eighteenth century, the medical establishment³¹ was familiar with bubonic plague’s symptoms and adverse effects, but remained uncertain of the disease’s etiology, and thus many of them looked to miasma theory – a belief dating back to ancient Greece that the inhalation of poisonous emanations from decaying matter contributed to the cause of many diseases.³² The argument supported that materials such as sewage or rotting carcasses emitted poisonous vapors that contaminated the human body. Miasma theory also urged that infection originated from the exhalations of persons suffering from a particular illness, much like the methods propagated by another approach - the concept of contagion.

Alongside miasma theory, the ancient concept of “contagiousness” – the belief that a disease is transmitted through physical contact with an infected person – advanced during the eighteenth century, and gained momentum as a conceivable approach to the transmission of

³¹ The medical establishment during this time consisted of three elite groups of practitioners each belonging to their own separate branch: the College of Physicians, the Society of the Apothecaries, and the Company of Barber-Surgeons (the surgeons eventually split from this partnership, forming the Company of Surgeons in 1745.) Physicians were commonly medical students that held both a B.A. and M.A. from either the University of Oxford or Cambridge; however, degrees could also be received sooner at other European universities. During their education, students studied the classical medical texts of Greek physician Galen, as well as others that emphasized the balancing of the four ‘humors’. Afterward, most physicians sought licenses from the College of Physicians, (but many also practiced medicine without one) and generally looked down upon the practices of apothecaries and surgeons. Apothecaries harnessed a dual-skill, as they were able to both diagnose patients and treat illness with prepared medicine, their services costing substantially less than those of physicians. Surgeons, or barber-surgeons, were able to perform surgical procedures that physicians were unable to, such as bloodletting. See Moote, Lloyd A. and Dorothy C. Moote, *The Great Plague: The Story of London’s Most Deadly Year* (Baltimore, Maryland: Johns Hopkins University Press, 2004), 95.

³² Stephen Halliday, “Death And Miasma In Victorian London: An Obstinate Belief,” *BMJ: British Medical Journal* 323, no. 7327 (December 22, 2001): 1469–71, accessed February 15, 2014. <http://www.jstor.org/stable/25468628>.

plague.³³ In addition to the doctrine of contagion, medieval notions of contingent contagionism applied the idea of circumstantial susceptibility to disease based on climactic or geographically localized and corrupted air. Furthermore, the belief in contamination being transferred from one individual to another by means of such corrupted air was very similar to notions of a miasma. Commonalities in the interpretations of miasma theory and contagion led physicians to perceive these approaches as symbiotic in nature, rather than mutually exclusive of one another, as modern science has shown them to be.³⁴ Until the mid-nineteenth century, miasma theory persisted alongside contagion (as well as other less popular theories), not only as a model for plague causation, but for other diseases such as chlamydia and cholera.³⁵ Given the widespread support of miasma theory in the seventeenth century and the medical dogma published in favor of the approach with regard to plague, pamphlets and treatises produced during the early eighteenth century mimicked much of what those in the medical profession had already been established during previous epidemics. Physicians offered these tracts to the public, which contained text primarily in favor of experiential preventative measures against epidemics – especially in the case of plague.

Regardless of carelessly executed and unreliable measures, the English government regarded efforts to halt ships arriving from infected areas in addition to the separation of imported merchandise as successful interruptions to bouts of plague throughout Europe.³⁶ Furthermore, in order for maritime quarantine to prove adequate, the process depended upon government enforcement of a much more stringent operation than the previously tentative

³³ “Concepts of Contagion and Epidemics.” *Harvard University Library Open Collections Program*, 2014. accessed February 10, 2014, <http://ocp.hul.harvard.edu/contagion/concepts.html>.

³⁴ Germ theory, developed in the nineteenth century and further proved in the twentieth century, states that specific microscopic organisms are the cause of specific diseases. See “Germ Theory.” *Harvard University Library Open Collections Program*, 2014, accessed February 11, 2014, <http://ocp.hul.harvard.edu/germtheory/concepts.html>.

³⁵ John M Last, “Miasma Theory,” in *Encyclopedia of Public Health*, ed. Lester Breslow (New York: Macmillan Reference USA, 2002), 3:765. Accessed November 2, 2013.

³⁶ Slack, *The Impact of Plague in Tudor and Stuart England*, 315.

standards required in the sixteenth and seventeenth centuries.³⁷ However, due to the complexities and unfamiliarity of the scientific process of inter-human and rat-human transmission of the disease known today, plague in the eighteenth century continued its former, unsettling role. The word ‘plague’ itself had carried cataclysmic connotations for centuries, and continued to invoke calamitous implications whenever outbreaks were reported. Although a number of physicians continued to delineate one or few “conclusive” causes of the disease, none could advance any sense of it beyond what had already been determined during the Great Plague in 1665.³⁸ An absence of an understanding regarding the enigmatic nature of plague’s epidemic and epizootic capabilities in combination with an eighteenth century tendency toward methods of prevention over recovery, allowed plague to persevere as an epidemic that was essentially much easier to avert than to control.³⁹

Plague and English Quarantine at the Turn of the Eighteenth Century

In 1710, quarantine laws in England grew increasingly more stringent in response to outbreaks of plague in nearby countries. What remains an important and often overlooked actuality, is that while bubonic plague failed to cease completely from England after 1666 – the end of the last major epidemic of the disease to occur in the United Kingdom – it had declined immensely, a lack of rigorous quarantine acts notwithstanding. Furthermore, these laws not only persevered over the course of the century, but the regulations escalated, despite an obvious detachment between medical convictions and public opinion, as well as a continued absence of

³⁷ Ibid., 46.

³⁸ Zuckerman, “Plague and Contagionism in Eighteenth-Century England: The Role of Richard Mead,” 280.

³⁹ Slack, *The Impact of Plague in Tudor and Stuart England*, 315.

epidemic plague.

In response to news of an outbreak of plague in the Baltic and East Central European regions during the Great Northern War (1700-21), Parliament established the Quarantine Act of 1710. England had managed to evade an epidemic of plague for forty years by the time Parliament issued the Act of 1710. Therefore, one might suggest that England's decision to implement rigorous quarantine procedures came about at a peculiar time for the kingdom. Nevertheless, plague was no stranger to Great Britain and the onset of infection in nearby regions seemed reason enough for the English government to employ whatever measures they deemed necessary.

By the beginning of the eighteenth century, plague and its destructive effects were hardly unfamiliar. During the Great Northern War (1700-1721), the appearance of the disease in places such as Sweden and Denmark created an alarming sense of fear in countries that traded with them. The Kingdom of Great Britain - which depended upon resources from the Baltic region such as hemp and flax in order to equip their navy - grew ever more concerned in 1709 once word of plague extending into Danzig reached England's citizens.⁴⁰ Parliament decided that declaring a forty-day period of quarantine on all ships arriving from northern Poland alone (where the plague may have been steadfastly approaching) might not have prevented it entirely from entering Great Britain. As a result, England passed its first quarantine Act in 1710, marking the beginning of a course of arbitrary measures that would follow. These erratic preventative actions ranged from the outright prohibition of trade with countries merely suspected of

⁴⁰ Mark Harrison, *Contagion: How Commerce Has Spread Disease* (New Haven: Yale University Press, 2012), 27.

infection, to the burning of ships and their cargo without any reliable evidence of plague aboard.⁴¹

The Quarantine Act of 1710 established a series of regulations pertaining to the observation and probable detention of all ships and vessels arriving in the kingdom of Great Britain from infected areas – in this case, the Baltic Sea region⁴². Furthermore, it pointedly acknowledged the prevention of infection being brought into the country “by persons or merchandizes coming from places infected.” Prior to the establishment of the Act, many physicians argued that infection often occurred from the handling of certain goods; only, the quarantining of merchandise in particular had ceased to be implemented into a uniform policy in England until 1710.⁴³ It was not until the seventeenth century that Parliament attempted to administer a systematic approach involving maritime quarantine in order to prevent the possibility of plague entering the country by way of infected ships and their merchandise.⁴⁴

The Act of 1710 instituted harsh penalties for individuals who violated guidelines, authorizing customs officials the ability to utilize force toward anyone attempting to dodge the order’s procedures.⁴⁵ The law instructed these officials to detain all ships – including, passengers and their merchandise – for the length of forty days, and this applied to all ships or vessels coming into Great Britain from regions located on or near the Baltic Sea.⁴⁶ Moreover, in an effort to rid the merchandise of possible contamination, the Act required the opening and airing of imported goods during quarantine.⁴⁷ Based primarily on sixteenth and seventeenth century

⁴¹ Charles MacClean, *Evils of Quarantine Laws, and Non-Existence of Pestilential Contagion: Deduced From The Phenomena of the Plague of the Levant, the Yellow Fever or Spain, and the Cholera Morbus of Asia* (London: 1824), 96-7, Quarantine Act 1721.

⁴² An Act to Oblige Ships Coming from Places Infected, More Effectually to Perform Their Quarentine, 1710, 9 Anne.

⁴³ Slack, *The Impact of Plague in Tudor and Stuart England*, 221.

⁴⁴ Ibid.

⁴⁵ An Act to Oblige Ships, 1710.

⁴⁶ Ibid.

⁴⁷ Ibid.

preventative measures and notions of contagion, procedures associated with quarantine such as the shutting up of houses were not unknown throughout the country prior to the establishment of the Act of 1710. However, the institution of this particular piece of legislation set in motion a rigorous set of laws that would only become more stringent as the century progressed.

Subsequently, when word spread to England through the newspapers of an epidemic in Marseilles in 1720, the country responded to the recurring threat of plague with swift political action. The Privy Council immediately sought a replacement for the Quarantine Act of 1710 in order to adequately address the plague in France. The order, “An Act for Repealing an Act,” did in fact just that; it deemed the previous order instituted during the reign of Queen Anne as “insufficient” to deal with the current outbreak of plague in the south, and thus its revocation resulted in the implementation of the newly amended Quarantine Act of 1721. This revision ordered that all ships and vessels endure a thorough quarantine of both the crew and cargo aboard, but also included a discretionary addition, “to enable his Majesty effectually to prohibit commerce for the space of one year with any country that is, or shall be, infected with the plague.”⁴⁸ The Act also granted the use of lazarets⁴⁹ – quarantine stations established specifically for maritime travellers– rather than requiring ships, vessels, and their cargo to undergo isolation strictly aboard the ship in which they had arrived.⁵⁰ Furthermore, the amendment reestablished the use of boundary lines and trenches around cities and towns, guarded by soldiers to prevent the spread of plague by means of communication with infected people and places – a product of contagionism backed by various eighteenth century physicians, including the influential Dr. Richard Mead.⁵¹

⁴⁸ Quarantine Act, 1721, 7 Geo. 1.

⁴⁹ From French *lazaret*, and Italian *lazaretto*; an isolation hospital. “Lazaret, N.” *OED Online*. Oxford University Press, accessed March 4, 2014, <http://www.oed.com>.

⁵⁰ Quarantine Act, 1721, 7 Geo. 1.

⁵¹ Quarantine Act, 1721, 7 Geo. 1.

The Role of Richard Mead

Modifications to the Quarantine Act of 1710 came about as a result of the concessions of both miasmatic theory and contagion propagated specifically by physician Dr. Richard Mead (1673-1754). In relation to the Privy Council's pursuit of medical advice prior to the amendment of the Act, the advisers consulted Mead and asked him to produce a plague treatise concerning the prevention of a possible epidemic occurring in the kingdom of Great Britain. The English-born physician possessed a long list of credentials, allowing him to achieve a prestigious reputation as a doctor. In his early career, Mead attended the University of Leiden where he studied physics and botany, but left the institution without a degree in 1695. Following his time in Leiden, Mead toured Italy and attended the university in Padua, where he received a medical degree, subsequently returning to England the following year.⁵² The establishment of a medical practice in his hometown of Stepney began Mead's path toward success, and eventual recognition as one of the most prestigious professionals in the field.

In 1702, Mead published, *A Mechanical Account of Poisons, in Several Essays*, and the Royal Society of London – a learned association of science – gave the physician's work an approving evaluation.⁵³ The organization elected to admit him in 1703, and Mead eventually went on to become its vice president. Prior to this promotion, however, Mead published *A Treatise Concerning the Influence of the Sun and Moon Upon Human Bodies and the Diseases Arising Therefrom* in 1704, wherein he established a connection to the medieval belief proposed

⁵² *Oxford Dictionary of National Biography*, "Mead, Richard (1673-1754)," by Anita Guerrini, Accessed February 14, 2014, <http://oxforddnb.com>.

⁵³ "An Abstract of Dr. Mead's Mechanical Account of Poysons Sent to the Publisher, by Sam Morland," *Philos. Trans. Roy. Soc. London*, 1702-3, 23: 1320-28; Zuckerman, "Plague and Contagionism in Eighteenth-Century England: The Role of Richard Mead," 274.

by doctors at the University of Paris who ascribed the onset of plague to a series of astrological and geological forces.⁵⁴ In his treatise, Mead attributed the cause of plague to the moon's phases, mentioning Dutch physician Diemerbroeck's⁵⁵ description of the epidemic in England during 1636, which according to Diemerbroeck, spread rapidly during the full moon.⁵⁶ St. Thomas - one of the largest hospitals in London – appointed Mead as a physician, and in 1708 the College of Physicians elected him as a candidate, where he became a member in 1716. The physician's publication of an abundance of work regarding poisons, in combination with his treatment of Queen Anne during her final years, served to secure his prestigious reputation, and led George I's Privy Council to seek his advice when word of an outbreak of plague in Marseilles reached England.⁵⁷

Despite such an impressive resume, Mead himself had never indicated treating or coming into direct contact with an instance of plague, and thus his advice stemmed from the recorded observations of others in combination with his own knowledge of physic (the application of physics concepts to medicine) and fevers.⁵⁸ Regardless of a lack of firsthand experience with the disease, however, the Privy Council considered Mead an expert in quarantine and therefore, the most qualified for the task given his other credentials.⁵⁹ In 1720 by request of the state, Mead published *A Short Discourse Concerning Pestilential Contagion, and*

⁵⁴ Richard Mead, *A Treatise Concerning the Influence of the Sun and Moon Upon Human Bodies, and the Diseases Thereby Produced* (London: 1748), 73.

⁵⁵ Isbrand van Diemerbroeck; Dutch physician and biologist who wrote about his experiences in treating the plague in his work *De Peste* in 1646.

⁵⁶ Mead, *A Treatise Concerning the Influence of the Sun and Moon Upon Human Bodies, and the Diseases Thereby Produced*, 73.

⁵⁷ Elizabeth Lane Furdell, *The Royal Doctors, 1485-1714: Medical Personnel at the Tudor and Stuart Courts* (New York: University Rochester Press, 2001), 242; Zuckerman, "Plague and Contagionism in Eighteenth-Century England: The Role of Richard Mead," 280.

⁵⁸ Gavin Milroy, *Quarantine and the Plague: Being a Summary of the Report on These Subjects, Recently Addressed to the Royal Academy of Medicine in France; with Introductory Observations, Extracts from Parliamentary Correspondence, and Notes* (London, 1846), 40.

⁵⁹ Zuckerman, "Plague and Contagionism in Eighteenth-Century England: The Role of Richard Mead," 275; Furdell, *The Royal Doctors, 1485-1714: Medical Personnel at the Tudor and Stuart Courts*, 242.

the Methods to Be Used to Prevent It. The Privy Council incorporated the physician's advice regarding the prevention and spread of plague into the newly amended Quarantine Act of 1721, which becomes discernible in the modified procedures laid out in the legislation's revised clauses.

In his *Short Discourse*, Mead attributed the propagation of plague to three specific causes; infected air, infected persons, and the transportation of tainted goods from infected places.⁶⁰ The physician explained the possibility of plague being conveyed by way of miasma or infected air, in other words, by an altered constitution of the atmosphere, primarily through an increase in seasonal heat or precipitation.⁶¹ However, Mead also argued that a corrupted state of air alone could not conjure the contagion of plague, but that it also required the emission of infection from persons suffering from the affliction in order for the disease to be transmitted. Furthermore, Mead claimed that diseased persons could also transmit the affliction to another person, in accordance with the basis of direct contact associated with the theory of contagion. According to Mead, a healthy person could become infected by breathing in foul air, or effluvia originating from the exhalations of an individual with plague. The third and most controversial of Mead's causes, goods transported from infected areas, proposed that active substances, or 'seeds of contagion'⁶², lodged in bales of imported merchandise could spread plague once these goods were uncovered and came into contact with healthy individuals.⁶³

Given that the agents of contagion listed by Mead ultimately rested on contagiousness in addition to notions of miasma, his opinions relating to the practice of quarantine as a whole

⁶⁰ Richard Mead, *A Short Discourse Concerning Pestilential Contagion: And the Methods to Be Used to Prevent It* (London, 1720), 2.

⁶¹ *Ibid.*, 2-3.

⁶² Contagious and communicable diseases as specific entities propagated by invisible seeds of infection; Vivian Nutton, "The Seeds of Disease: An Explanation of Contagion and Infection from the Greeks to the Renaissance," *Medical History* 27, no. 1 (January 1983): 1, accessed March 3, 2013. <http://www.ncbi.nlm.nih.gov>

⁶³ Mead, *A Short Discourse Concerning Pestilential Contagion: And the Methods to Be Used to Prevent It*, 16-17.

remained divided, and these differences became detectable in his treatise. Furthermore, the physician's use of two conflicting theories in explaining the mode of plague's transmission led his preventative advice to be somewhat equivocal. Mead, who assured the ability of corrupted air in spreading great distances also recommended the formation of guarded boundary lines stationed around cities in order to prevent communication between infected and non-diseased municipalities. If the noxious aura could inevitably span over such a wide area, then boundary lines would have proven inadequate in halting the advancement of plague.

The Implementation of Mead's Quarantine

Mead's recommendations significantly affected ideas concerning quarantine, specifically with regard to commerce. Parliament's decision to prohibit trade with countries suspected of infection for up to one full year can be traced to the opinions found in Mead's *Short Discourse*. In the treatise, Mead claimed, "that when the contagion has ceased in any place by the approach of winter, it will not be safe to open a free trade with it too soon."⁶⁴ He further defended this appeal with the assertion that 'seeds of contagion' are not destroyed by cold weather, but are actually kept inactive until the warmth of spring should come and rejuvenate them.⁶⁵ Furthermore, given Mead's belief in the ability of goods to absorb a 'contagious aura' during packaging in places known to be suffering from bouts of plague, the physician argued that England's 'healthful temperament; might reinvigorate any contagion lodged within upon opening the merchandise.⁶⁶ In other words, because reported cases of plague in England tended to be attributed to foreign vessels and shipments, Mead suggested that a conditional atmosphere such

⁶⁴ Ibid., 28.

⁶⁵ Ibid., 29.

⁶⁶ Ibid., 58.

as the spring and summer seasons in England, could very well be held responsible for such incidences as the Great Plague in London, which arrived into the port city by way of trade and spread rapidly during the warmer months.⁶⁷ Therefore, given the appropriate seasonal conditions, trade with countries where plague was thought to be thriving could by chance spark an epidemic. Mead saw that postponement of trade for an extended period of time was necessary in order to ensure that the ‘seeds of contagion’ possibly lying dormant in bales of goods were given sufficient time to no longer be contagious, and thus, the physician recommended suspension of trade for up to one full year with areas enduring bouts of plague. Much like the theory of contingent contagionism that would be further established in the nineteenth century, Mead’s argument swayed between miasma theory and contagion, leaving a large amount of room for inconsistency.

Just as well, Mead’s advice regarding the use of lazarets in *A Short Discourse* corresponded with the creation of segregated quarantine stations referred to in the Act of 1721. Mead deemed that the previous detention of passengers and merchandise were insufficient. Instead of the former method, which required passengers and merchandise to be quarantined aboard the ship or vessel on which they arrived, Mead recommended the construction of lazarets in order to receive ships and their goods during the process of airing⁶⁸ and isolation.⁶⁹ Thirdly, the institution of boundary lines or *cordon sanitaires* along municipal perimeters and the employment of commissions and watchmen to oversee their activity coincided with Mead’s approval of the procedure’s adequacy in preventing the spread of plague through

⁶⁷ Ibid., 9.

⁶⁸ The action of exposing imported goods and merchandise to the air in order to ventilate or air out any contagious effluvia lodged within.

⁶⁹ Mead, *A Short Discourse Concerning Pestilential Contagion: And the Methods to Be Used to Prevent It*, 21.

communication, and to which he promoted it as the most effective strategy for preventing the spread of infection to and from other nearby communities.⁷⁰

Household quarantine, however, remained ineffective according to Mead.⁷¹ In agreement with miasma theory, Mead's allegation rested on the belief that noxious air passing from household to household via open windows would undoubtedly result in the infection of healthy persons in other houses, and that those ailing from the plague should ultimately be separated from the healthy.⁷² The physician also advised that the burning of clothing and bedding belonging to infected persons and families should be performed. Despite Mead's opinion regarding the inadequacy of the shutting up of infected houses, its level of effectiveness in terms of merchandise presented in *A Short* was extensive. According to Mead, the most considerable hazard lies in goods of a delicate and unconstrained composition, particularly fabrics.⁷³ Moreover, Mead attributed his claim to previous accounts of contagion being transmitted from person to person via infected clothing and bedding, which were suppositional but extremely impressionable. These explanations included narratives produced by other contagionists dating as far back as the fourteenth century.

A Further Examination of Mead's Assertions

Written shortly after the height of the Black Death, Italian author Giovanni Boccaccio (1313-1375) published *The Decameron*, an account of the plague as it ravaged Europe during the fourteenth century, dismantling much of the world around him. A particular scene painted by the author in the book's introduction describes a dismal scene:

⁷⁰ Ibid., 53

⁷¹ Ibid., 34.

⁷² Ibid. 24.

⁷³ Ibid., 17.

“Once, the rags of a poor man who had just died from the disease were thrown into the public street and were noticed by two pigs, who, following their custom, pressed their snouts into the rags, and afterwards picked them up with their teeth, and shook them against their cheeks: and within a short time, they both began to convulse, and they both, the two of them, fell dead on the ground next to the evil rags.”⁷⁴

Other alarming accounts of individuals instantaneously receiving infection from fabrics and other similar materials continued to appear, and this was due largely in part to influential observations of contagion that propagated the transmission of “impure seeds” that served to explain the dangers of coming into contact with bedding, clothing, and fabrics that had belonged to victims of plague and other contagious diseases. During the fifteenth century, Veronese physician Alexander Benedictus referred to an infected feather bed being placed in the corner of a house, and seven years later spreading the disease and killing up to 5,900 people in twelve weeks. Benedictus also mentioned an instance of a rag containing the plague for fourteen years. In 1511, a treatise published by physician and contagionist Girolamo Fracastoro (1476-78 – 1553) describes twenty-five men consecutively falling victim to the plague after all wearing the same fur gown.⁷⁵ Physician Nathaniel Hodges (1629-1688), who wrote about the Great Plague that happened in England in 1665, detailed his visitation of a woman in seemingly good health but who later died during the afternoon. Hodges attributed her sudden fatality to the contagiousness of his garments, since he had previously visited several plague victims that day.⁷⁶

These narratives not only fueled Mead’s opinions regarding contagiousness, but others prior to him as well. The prevention and treatment of plague were largely grounded in

⁷⁴ Giovanni Boccaccio, Introduction to *The Decameron* (Signet Classics, 2010), Kindle edition.

⁷⁵ Joseph Browne, *A Practical Treatise of the Plague, and All Pestilential Infections That Have Happen’d in This Island for the Last Century, With a Prefatory Epistle Address’d to Dr. Mead, By Joseph Browne, L.L.M.D.* (London, 1720), 38; Elizabeth D. Harvey, *Sensible Flesh: On Touch in Early Modern Culture* (University of Pennsylvania Press, 2003), 25. Google Books.

⁷⁶ Nathanael Hodges, and John Quincy, *Loimologia Or An Historical Account of the Plague in London in 1665: With Precautionary Directions Against the Like Contagion* (London, 1720). Google Books.

supposition and manners of empirical observation rather than professional, medical doctrines.⁷⁷

Secondly, however, Mead utilized the argument that cloth and other fabrics were apt to retain ‘seeds of contagion’ based upon their ability to likewise preserve aromas such as perfume. He explained:

“We all know how long a time perfumes hold their scent, if wrapt up in proper coverings: the substances found most fit to keep them in are the very same with those which are most apt to receive and communicate infection, as furs, feathers, silk, hair, wool, cotton, flax, etc...Goods of a loose and soft texture, which being packt up and carried into other countries, let out, when opened, the imprisoned seeds of contagion.”⁷⁸

In addition to Fracastoro’s account of a fur gown effectively spreading plague to numerous men, the Italian physician also published *On Contagion and Contagious Diseases and Their Cure* (1546), wherein he alluded to the belief in ‘seeds of contagion’ as being responsible for plague infection by way of “fomes” – any porous substance capable of absorbing and retaining infection⁷⁹ Mead, who classified himself as a contagionist, frequently referred to Fracastoro’s claims in his own pestilential discourse, referring for example, to bales of goods being opened and releasing “imprisoned seeds of contagion,” though he does not cite the Italian doctor specifically by name. Although contagionists remained outnumbered in comparison to miasma theorists, Mead persevered as one of few physicians who ultimately succeeded in reviving and advancing concepts of contagion during the eighteenth century.⁸⁰

In the following pages of *A Short Discourse*, Mead also included linen, hemp, books, paper, and animal skins as goods capable of preserving contamination from plague.⁸¹ However, Mead emphasized cotton as harboring the biggest threat given that it was often imported from

⁷⁷ Slack, *The Impact of Plague in Tudor and Stuart England*, 221.

⁷⁸ Mead, *A Short Discourse Concerning Pestilential Contagion: And the Methods to Be Used to Prevent It*, 17-18.

⁷⁹ “Fomes, N.” *OED Online*. Oxford University Press, accessed March 3, 2014. <http://www.oed.com>

⁸⁰ Margaret DeLacy, “Nosology, Mortality, and Disease Theory in the Eighteenth Century,” *Journal of the History of Medicine and Allied Sciences* 54, no. 2 (1999), accessed February 24, 2014, <http://jhmas.oxfordjournals.org>.

⁸¹ Mead, *A Short Discourse Concerning Pestilential Contagion: And the Methods to Be Used to Prevent It*, 24.

countries where the presence of plague remained constant, such as Turkey, wherein the English physician referred to it as a ‘perpetual seminary of the plague’.⁸² During the outbreak of plague in Marseilles in 1721, imported goods from the Ottoman Empire, which made up the majority of England’s trade with the Levant Company⁸³, were regarded by England’s Royal College of Physicians as a source of infection.⁸⁴ Many feared that the quarantine of these goods would prove disastrous to English mercantilism. As a result of these notions, Mead advised the establishment of strict policies for maritime quarantine, and urged that the opening and airing of goods for decontamination purposes take place at lazarets⁸⁵.

With the promulgation of physician Richard Mead’s work in particular, England’s isolation policies took on much more restrictive guidelines in the amended Quarantine Act of 1721 than before. These changes also sparked a disconnection between the English government and its citizens, especially merchants, who argued that the new protocols were barbaric and unconstitutional, not to mention damaging to trade.⁸⁶ Mead’s *Short Discourse* soon fell under critical examination by his medical opponents who found the treatise to be riddled with contradictions and ambiguous explanations regarding the cause and transmission of plague. Furthermore, in addition to the discernible inconsistencies within Mead’s discourse, there remained an obvious detachment between his convictions and the opinions of the public – specifically with regard to Parliament’s establishment of the more stringent quarantine practices. This not only went on to affect subsequent medical doctrines, but government conduct as well –

⁸² *Ibid.*, 17.

⁸³ An English chartered company formed in 1581, to regulate trade with Turkey and the Levant until 1825; Thomas Stuart Willan, “Some Aspects of English Trade with the Levant in the Sixteenth Century,” *English Historical Review* 70, no. 276 (1955): 399, accessed February 24, 2014, <http://jstor.org>.

⁸⁴ Birsan Bulmus, *Plague, Quarantines and Geopolitics in the Ottoman Empire* (Edinburgh: Edinburgh University Press, 2012), Google Books.

⁸⁵ In *A Short Discourse*, Mead employs the Italian term lazaretto instead of lazaret.

⁸⁶ Birsan Bulmus, *Plague, Quarantines and Geopolitics in the Ottoman Empire* (Edinburgh: Edinburgh University Press, 2012), Google Books.

particularly, in the area of quarantine and trade.

Since the establishment of the Quarantine Act of 1710, epidemic plague remained absent in England, and thus, Parliament's decision to amend the policy in 1721 stemmed in part from the widespread fear that often accompanied outbreaks of pestilence. In the case of the plague in Marseilles, *The Great Bill of Mortality, or, the Late Dreadful Plague at Marseilles Compared With That in London in 1665* was published in 1721, and fueled similar anxieties found in Mead's 1704 treatise that individuals could so suddenly and unknowingly be seized with plague.

The author reported:

“The porters first employed in opening her cargo were immediately seized with violent pains in the heads, reaching to vomit, and a general faintness all over the limbs and bodies; and in 6 to 8 hours time buboes and plague sores began to rise, of which they died in three days. Those that succeeded them were taken and died in the same manner.”⁸⁷

Individuals in support of these notions of contagion, which propagated that ‘seeds of contagion’ were responsible for transmitting infectious diseases, justified the belief in infected merchandise being capable of spreading the plague. This particular account of instantaneous infection in Marseilles reported in *The Great Bill of Mortality*, as well as others during the eighteenth century fueled the English government's continued apprehension toward the potential threat of imported goods. Contagionists in particular, who believed that plague spread to other countries by way of contact with infected merchandise, supported observations such as the one described as happening in Marseilles. Therefore, many physicians, like Mead, continued to recommend airing out goods in quarantine in order to hinder the spread of plague through commerce. And yet, despite the remarks made in *The Great Bill of Mortality* concerning the men who instantaneously

⁸⁷ Author of the Practical Scheme, *The Great Bill of Mortality: Or, the Late Dreadful Plague at Marseilles* (Bristol, 1721).

fell victim to the plague upon opening crates of infected goods, Mead never addressed the threat of this contrasting argument in his medical treatises.

During the first two years following the publication of Mead's *Short Discourse* in 1720, England actively experimented with the physician's advised methods of lazaret and maritime quarantine. In addition to the enforcement of harsh punishment, Mead advised that all merchandise aboard any ship or vessel arriving from an area where plague persisted during departure be burned (or buried, whichever proved more convenient), and that the "clandestine importing of goods be punished with the utmost rigour."⁸⁸ In 1721, government officials informed the British consul in Venice of two ships carrying cotton and intending to enter London from Cyprus. The ships had previously been denied at the Italian port cities of Messina and Leghorn under suspicion of plague. Under the modified provisions of the Act of 1721, King George I ordered that the vessels as well as their goods be burned, awarding the merchants £24,000 as compensation.⁸⁹ Parliament's adoption of Mead's advice into the amended Quarantine Act of 1721 serves as an indication of the physician's influence. Although the previous Act of 1710 had already set forth the penalty of rigorous punishments, Mead's supposed authority on the subject of plague prevention, in combination with the inconsistencies apparent in his opinions, certainly allowed for a more arbitrary set of guidelines.

Shortly after Mead's *Short Discourse* began to circulate, others in the medical profession published similar works primarily offering preventative measures against plague. Similarly to trends in maritime quarantine, medical writings tended to focus on the hindrance of plague as opposed to curing it. Following the country's most recent outbreak in 1665, there remained an absence of any increased understanding in the disease's etiology, and therefore, prevention

⁸⁸ Mead, *A Short Discourse Concerning Pestilential Contagion: And the Methods to Be Used to Prevent It*, 29-30.

⁸⁹ Slack, *The Impact of Plague in Tudor and Stuart England*, 221; *The Encyclopaedia Britannica: A Dictionary of Arts, Sciences, and General Literature*, "Quarantine," by Maxwell Sommerville, Google Books, accessed January 20, 2013, <http://books.google.com>.

became a common theme of eighteenth century medical tracts.⁹⁰ On the surface, Mead's treatise delivered the customary guidelines associated with the prevention of plague, however, a closer examination by his medical opponents revealed it to be riddled with inconsistencies that inspired a civic resistance to both the doctor's ideas and the overall harsh implications of quarantine. Furthermore, medical practitioners were not the only people to offer rebuttals to Mead's *Short Discourse*. The radical punishments and restrictions that appeared in the Quarantine Act of 1721 caused widespread agitation amongst the public, who viewed the quarantine measures as an infringement upon their rights and privileges. The ongoing threat that plague could arrive in the Kingdom of Great Britain at any moment in combination with an extensive amount of agitation expressed toward the government's preventative policies sparked a variety of groups to take on an increasing amount of interest concerning the adequacy of Mead's suggestions.

Medical Opposition and Assessment of Mead's *Short Discourse*

In response to Mead's *Short Discourse*, English physician George Pye published an essay entitled, *A Discourse on the Plague: Wherein Dr. Mead's Notions are Considered and Refuted*. Unlike Mead, Pye ultimately argued miasma theory to be separate from the concept of contagion, attributing the plague to the disposition of the air, and to overall ideas of contingent contagionism. He showed immense concern for the potential fear and anxieties that Mead's recommended preventative measures might invoke on the public. Moreover, Pye argued that

⁹⁰ Zuckerman, "Plague and Contagionism in Eighteenth-Century England: The Role of Richard Mead," 280.

such an intense cause for alarm in response to outbreaks of plague would undoubtedly result in exposing individuals to complete degeneration:

“If the plague can be conveyed by commerce; and quarantines are proper and requisite; and quarantines must occasion a great decay of trade, if not the entire ruin of some branches of it: hence a flood of evils, the ruin of merchants, manufacturers, and other traders, deficient customs, loss of public and private credit, poverty, starving and destruction.”⁹¹

Pye claimed that such societal deterioration outweighed the overall risk of plague, as the quarantine of ships and merchandise arriving from abroad posed a much smaller threat than the overall commercial degradation that would surely ensue as a result of such measures.⁹²

On the subject of the contagiousness of goods, Pye argued that persons in charge of packing up merchandise would more than likely be too physically ill to perform such a duty, challenging Mead’s theory that cargo could receive infection from sick persons and that contagion was released upon opening the crates. Moreover, the isolation and airing of goods, as Mead advised, seemed useless given that those employed to perform these tasks would doubtlessly become infected.⁹³ Pye urged that according to Mead’s theories, all commerce would have needed to subside if plague were to be absolutely prevented, as the physician pointed out, “for it may very easily happen, that a ship may come away from a place newly infected, and be arrived here, before we have received the news of that place being infected.”⁹⁴ Furthermore, Pye emphasized England’s recent increase in trade with Turkey since the Great Plague of 1665 in London, and thus called into question the overall lack of epidemic plague reaching the kingdom, despite such activity. “We ought to have had,” Pye continued, “more frequent returns of the

⁹¹ George Pye, *A Discourse of the Plague: Wherein Dr. Mead’s Notions Are Consider’d and Refuted* (London, 1721), Preface.

⁹² *Ibid.*, 52-54.

⁹³ *Ibid.*, 44.

⁹⁴ *Ibid.*, 48.

plague since that time than before; whereas on the contrary, we were very frequently visited with it before that time, and have been perfectly free from it ever since...above 56 years,” - an absence of systematic quarantine notwithstanding.⁹⁵ Here, the physician acknowledged the lack of epidemic plague in England within roughly the last five decades, despite the fact that policies such as those advised by Mead had not been utilized. Pye’s inquiry into the realization of plague being prevented for so many years without the employment of Mead’s recommended practices ultimately raises doubt as to whether or not strict maritime quarantine measures are necessary in order to hinder outbreaks of pestilence within the country.

Medical consensus formed toward the end of the nineteenth century confirmed that fleas infected with the bubonic plague bacterium were indeed responsible for the transmission of the disease.⁹⁶ However, during the eighteenth century, this analysis had not yet been realized, and a lack of epidemiological knowledge made it extremely difficult for England and many other countries to altogether prevent plague from entering the region through foreign trade. Nonetheless, these theories of contagion continued to justify quarantine practices, and were further supported by the likelihood that fleas contained in crates of merchandise would, in the event that their rodent host had perished, latch on to an individual when they opened or aired imported cargo. Either way, it is anachronistic to judge the utilization of quarantine practices that were advanced by contagion theory during the eighteenth century. But what is indeed interesting to note, is the obvious detachment between medical professionals, and their growing ability to

⁹⁵ Ibid., 37.

⁹⁶ John Frith, “The History of Plague Pt. 2: The Discoveries of the Plague Bacillus and Its Vector,” *Journal of Military and Veterans’ Health* 20, no. 3 (2012), 4; Bubonic plague: Individuals usually receive infection from the bite of an infected flea. The bacteria multiply in the lymph node closest to the entrance of the bacteria in the human body, resulting in buboes – swollen and tender lymph nodes. Septicemic plague: May develop from untreated bubonic plague or at the first symptoms of plague. An individual becomes infected from the bite of an infected flea or the handling of an infected animal. Pneumonic plague: Infected individuals may develop this stage of plague from inhaling infectious droplets or from untreated bubonic or septicemic plague. Pneumonia may cause respiratory failure and shock, and is the most fatal form of the disease; “CDC - Symptoms – Plague,” accessed March 4, 2014, <http://www.cdc.gov/plague/symptoms/index.html>.

recognize the ways in which contradictions and inconsistencies in opposing doctrines could prove detrimental to preventing a deadly epidemic, and the overall wellbeing of a society.

In the same year that Mead published his *Short Discourse*, physician Joseph Browne released *A Practical Treatise of the Plague and all Pestilential Infections that Have Happened in This Island for the Last Century* (1720). Within his treatise, Browne (*ibid.* 1673, *d.* in or after 1721) prefaced a letter to Mead addressing the latter's work and stated his agreement with Mead's overarching argument that poisonous air, diseased persons, and infected goods were indeed three potential causes of plague. However, Browne did not fully accept these three external factors listed in *A Short Discourse* as the absolute causes, but also added two elements of his own to Mead's list that contributed substantially to an individual's susceptibility to plague: diet, and preexisting disease.⁹⁷ In terms of diet, the physician offered a few examples of this claim, one being, "the more a man eats, the less he perspires; the less he perspires, the more danger there is of a plethora" (an overabundance of one or more humours, especially blood).⁹⁸ In accordance with the teachings of ancient medical texts, an imbalance of the four humors⁹⁹ meant the human body was more susceptible to infection or disease, and in many cases diet played a vital role in maintaining this humoralist belief.

As for disease, Browne attributed signs of illness to separate maladies that caused subsequent symptoms, such as, "too large an hemorrhage from the nostrils, disposes the parts to a vertigo or apoplexy."¹⁰⁰ In other words, Browne argued that one did not simply succumb to a

⁹⁷ Joseph Browne, *A Practical Treatise of the Plague, and All Pestilential Infections That Have Happen'd in This Island for the Last Century With a Prefatory Epistle Address'd to Dr. Mead* (London, 1720), 6.

⁹⁸ *Ibid.*, 8.

⁹⁹ Essentially, this theory holds that the human body is filled with four basic substances, called humors, which are in balance when a person is healthy. All diseases and disabilities supposedly resulted from an excess or deficit of one of these four humors. The four humors are black bile, yellow bile, phlegm, and blood, "And There's the Humor of It: Shakespeare and the Four Humors," accessed March 2, 2014, <https://www.nlm.nih.gov>.

¹⁰⁰ A malady, very sudden in its attack, which arrests more or less completely the powers of sense and motion, *OED Online*, accessed March 4, 2014, <http://oed.com>; Browne, *A Practical Treatise of the Plague, and All Pestilential*

harmful or fatal malady such as plague without first suffering a lesser attack on the body and its parts. In his mind, this opinion refuted Mead's theory that poisonous air, goods, or infected persons alone would cause a person to be taken ill with the plague. Brown urged that infectious air could not adhere to a person's blood or stomach unless an individual was already suffering from a less harmful condition such as poor diet, a necessary occurrence – in Browne's assessment – in order for the human body to develop a virulent illness such as plague.

For Brown, who identified plague as a, 'contagious venom,' dependent upon the internal constitution of the human body, external factors such as contaminated air or objects played only a minor role in the transmission of plague, and could not be held solely responsible for propagation. In addition, Browne also questioned Mead's miasmatic claim concerning the possibility that merchandise from foreign countries could create infectious air, which would render the airing and exposure of infected goods to "fresh air" dangerous, and likely to spread infection through the atmosphere.¹⁰¹ Therefore, Browne pressed Mead to publish a subsequent edition to his *Short Discourse* that would further explain the probability of contagion from Turkish goods despite the absence of epidemic plague amidst recent increase in trade between the two countries.¹⁰² In this same treatise, the physician mentioned England's recent increase in trade with the Levant Company and, similarly to Pye, posed that if Turkey were indeed a 'perpetual seminary of plague' as Mead described it to be in his *Short Discourse*, then at one point or another during the last fifty years, an afflicted person or persons had to have packed merchandise destined for England, which would have infected a predisposed or diseased individual designated to receive the goods. In addition, the abundance of coffee England

Infections That Have Happen'd in This Island for the Last Century With a Prefatory Epistle Address'd to Dr. Mead, 6.

¹⁰¹ Browne, *A Practical Treatise of the Plague, and All Pestilential Infections That Have Happen'd in This Island for the Last Century With a Prefatory Epistle Address'd to Dr. Mead*, 24.

¹⁰² Ibid.

received from Cairo - a region also constantly visited with plague - was transported in canvas bags that, according to Mead's notions concerning unconstrained materials, would have undoubtedly retained infection, and yet not one instance of epidemic plague could be proven as a result of such trade.¹⁰³

Browne also questioned the practicality of Mead's advice to air infected goods, which the former physician argued to be, "detrimental to the merchant and ruin of trade." If 'seeds of contagion' were in fact released upon the opening of merchandise from infected places, Browne urged that, "a rash judgment may prove of fatal consequence, either to the trade or the inhabitants of Great Britain."¹⁰⁴ Quarantine ensured that merchants submitted a thorough list of goods on board, which allowed the government to collect the appropriate amount of import taxes. However, the overall practice of quarantine itself proved to be, on the whole, very disadvantageous to trade. The process of detention not only delayed the flow of commerce, but the required airing of specific merchandise, particularly edibles and delicate materials, often resulted in damage or decomposition. In this way, Mead's encouraging opinion proved unfavorable to merchants and other citizens who depended upon trade as a source of income. However, if the government hurriedly lifted the stringent quarantine policies it placed on foreign ships and merchandise, the entire population could fall in danger of succumbing to an epidemic of plague.

Also in slight opposition to Mead, English physician and writer Richard Blackmore (1654-1729) conveyed his ideas of effectual preventative measures in *A Discourse Upon the Plague, with a Preparatory Account of Malignant Fevers* (1721). A fellow member of the Royal

¹⁰³ Ibid.

¹⁰⁴ Ibid., 27.

College of Physicians, Blackmore refuted Mead's notion regarding the transmission of plague from one region to another by way of infected goods, referring to the belief as an external cause less likely to propagate plague than the incidence of infection from an unhealthy internal composition of the human body.¹⁰⁵ Blackmore argues:

“I believe that the plague is often occasioned by infection from other countries convey'd by navigation, but I believe likewise, as I have said, that it far more frequently owes its generation to the internal vicious humors, or pestilential air, and especially when the Northern regions of Europe are visited with this dreadful calamity, it is most frequently to be ascribed to famine that follows the desolation made by the Sword, or to a dearth and scarcity of provisions occasioned by natural causes, and rarely to any fatal contagion communicated by imported wares.”¹⁰⁶

Similarly to Mead, Blackmore admits that commerce is capable of spreading the plague, but differs in that he does not attribute it as a fundamental explanation. Rather, Blackmore draws upon much of the same evidence as the physician Joseph Browne employed in his *Practical Treatise of the Plague*, arguing that despite increased trade with the Levant Company, a lack of epidemic plague over the last fifty or so years raised doubt as to whether or not trade from Sidon was in fact the sole cause of the recent plague in Marseilles.¹⁰⁷

Furthermore, if imports undoubtedly conveyed contagion, Blackmore defended that such a notion would require an infinite train of external infection, beginning with the first person ever to be affected by the disease.¹⁰⁸ But according to Blackmore, this idea would necessitate that the initial individual responsible for spreading the infection suddenly be stricken with plague – an idea that seemed unreasonable to the eighteenth century physician given his personal opinion

¹⁰⁵ Richard Blackmore, *A Discourse Upon the Plague, with a Preparatory Account of Malignant Fevers. In Two Parts. The First, Containing, An Explication of the Nature of Those Diseases. The Second, The Method of Cure.* By Sir Richard Blackmore, M.D. (London, 1721), 26, accessed February 15, 2014, <http://galegroup.com>.

¹⁰⁶ *Ibid.*, 26.

¹⁰⁷ *Ibid.*, 23.

¹⁰⁸ *Ibid.*, 25.

regarding the origins of disease transmission.¹⁰⁹ In other words, the validity of this approach rested on the notion that plague endured as the same strain in an infinite loop of contagion throughout the course of history, rendering the part of internal disposition propagated by Blackmore and Browne, ineffectual. Essentially, these two physicians recognized the impact of external sources such as infected goods or air, but unlike Mead they believed the internal constitution of the human body had a more prominent influence on an individual's likeliness to contract illness, particularly in the case of plague. However, despite Blackmore's opinion that commerce remained a mild threat to the transmission of plague, the physician goes on to suggest that the English government, and the city of London in particular, take every necessary precaution in order to prevent the infection entering the country from abroad.¹¹⁰

In response to Mead, but in agreement with Joseph Browne and Richard Blackmore, a pamphlet titled *An Hypothetical Notion of the Plague; and Some Out of the Way Thoughts About It* published under the name Mr. Place, circulated in 1721. Place referred to the necessity of the human body in propagating pestilential matter, however, he believed that God made the ultimate decision as to whether or not a person succumbed to the sickness lying dormant in the human body. This contagion, Place urged, remained inoperative during certain seasons, much like Mead's inclination that 'seeds of contagion' survived inactively until the warmth of spring or summer reinvigorated them. Similarly to Blackmore, Place refuted public or external causes as an origin of infection, and in his pamphlet stated that, if they in fact were viable causes, whole countries or groups of people would be devastated by plague much more often. Place ultimately sought to challenge Mead's theory that external causes of contagion played a more critical role in

¹⁰⁹ Ibid., 27.

¹¹⁰ Ibid., 74.

the transmission of plague, agreeing instead with Browne and Blackmore that the constitution of the human body persisted as a more substantial explanation.

In support of the external communication of plague, however, London apothecary and physician John Quincy (*d.* 1722) published *An Essay on the Different Causes of Pestilential Diseases, and How They Became Contagious*. A colleague of Mead's, Quincy agreed with the former's belief in the propagation of plague from abroad through infected persons or merchandise – so much so, that the physician attributed it as being, “the most common manner of conveying and spreading a contagion.”¹¹¹ Quincy's essay ascribed the absorption of plague to many of the same goods and materials mentioned in Mead's *Short Discourse* and also acknowledged the aptness of certain merchandise to retain infection until the arrival of warmer seasons.¹¹² Overall, the array of responses not only to Mead but to plague in general, sparked an increased amount of discontent among the medical profession, a dissatisfaction which ultimately poured over into their public readership.

Civic Responses to Eighteenth Century Quarantine Policy

In addition to the overabundance of medical discourse published in response to nearby outbreaks of plague during the eighteenth century, the public's reaction to the recommendations of physicians and the enactment of stringent quarantine legislation was ultimately one of vexation. Likewise, civic backlash in England represented an obvious frustration with the medical profession, wherein many practitioners continued to support the establishment of rigorous quarantine policies in order to prevent an epidemic of plague from abroad. Many of the

¹¹¹ John Quincy, *An Essay on the Different Causes of Pestilential Diseases, and How They Become Contagious: With Remarks Upon the Infection Now in France* (London, 1721), 52, accessed January 4, 2014, Google Books.

¹¹² *Ibid.*, 52-3.

community's responses acknowledged Mead's *Short Discourse* in popular newspapers such as *The Daily Journal*¹¹³. Author Daniel Defoe (1660? -1731) contributed to the discussion of plague in Marseilles and its overall effects in *Applebee's Original Weekly Journal*, a paper accredited with the regular publication of his columns.¹¹⁴

In 1721, an author styling themselves as a "Well-wisher to the Public" released a document titled *Some Observations Concerning the Plague: Occassioned By and with Some Reference to the Late Ingenious Discourse of the Learned Dr. Mead, Concerning Pestilential Contagion, and the Methods to Prevent It*. Within this essay, the advocate examines various observations made by seventeenth and eighteenth century physicians and physic specialists concerning the prevention and transmission of plague. The anonymous author acknowledges Mead's dismissal of household quarantine in particular, believing it to be a cruel and hurtful method of isolation that brings about nothing but overwhelming misery and discouragement to London's citizens. However, the undisclosed author agrees that the establishment of lazarettos for the sick is a proper alternative, an idea proposed by Mead in his *Short Discourse* a year earlier.

In terms of merchandise, the author challenges Mead's suggestion of burning infected goods, providing the argument that such an action would cause toxic particles adhering to the object to be released and propagated by the smoke from a fire. In order to support such a claim, the Well-wisher recalls an instance of contaminated materials polluting the air by way of smoke and infecting certain individuals:

¹¹³ *The Daily Journal* was considered an authority on British newspapers, and the third daily paper in London. During this time it was at the height of its popularity.

¹¹⁴ The claim that Defoe was a regular contributor to *Applebee's Original Weekly Journal* has remained under speculation; Maximillian Novak, "Daniel Defoe and *Applebee's Original Weekly Journal*: An Attempt at Re-Attribution," *Eighteenth-Century Studies* 45, no. 4 (2012): 585, accessed February 27, 2014, <http://muse.jhu.edu/>

“Wicked nurses, who desire to make work for themselves, are said to practice this very method to accomplish their barbarous designs; the smoke driving along the street, several that passed by betimes complained of a very offensive smell, and the next news was that almost all that had not formerly gone thro’ that disease in that whole street were seized with it in a few days.”¹¹⁵

The author merely refers to this example as a “generally received opinion in some parts of England,” and so its validity remains unknown. They receive this impression without any reluctance, suggesting that in light of this observation, the burial of infected goods is essentially the most effective means of disposing of them. Given the apparent virulence of the smoke, it is interesting to note the author’s quick compliance with the notion of the malicious performance of this task by the nurses, who would have also been risking their own health in order to accomplish their efforts.

A year after the Well-wisher’s opinions are released, another anonymous author by the name of the Explainer published an essay titled *Distinct Notions of the Plague, With the Rise and Fall of Pestilential Contagion* in 1722. In *Distinct Notions*, the Explainer aimed to further clarify and examine Mead’s *Short Discourse*, focusing primarily on the ways in which the physician managed to incorrectly relay concepts of contagion and infection as synonymous. The author, in favor of miasma theory, urged that plague is not in fact contagious, and that Mead’s observations concerning the effectiveness of household and maritime quarantine were suppositional. In opposition to the popular claim made by Mead and various other contaginists, the unidentified author asserts:

“I hope to show, that the opinion that has most commonly prevailed among us as of late, of merchandise, household goods, and apparel being a fomes or matrice¹¹⁶ for rearing up

¹¹⁵ Well-wisher to the public, *Some Observations Concerning the Plague: Occasion’d By, and with Some Reference To, the Late Ingenious Discourse of the Learned Dr. Mead, Concerning Pestilential Contagion, and the Methods to Prevent It. By a Well-Wisher to the Publick* (London, 1721), 14.

¹¹⁶ A womb. *Oxford English Dictionary Online*, accessed March 4, 2014, <http://www.oed.com>

a plague, to be as false as it is new...the air does not produce, far less bring any real corruption into the blood.”¹¹⁷

Given the tendency of eighteenth century plague tracts to remain predominantly uncontroversial, the Explainer of this particular essay makes a bold statement in classifying the distortion of the external cause of infectious goods propagated by a learned physician like Mead. However, the author does raise some critical questions as to the origin of Mead’s notions, and similarly to Richard Blackmore and Joseph Browne, alludes to the suspicious absence of epidemic plague given the recent increase in trade with Turkey.

A Journal of the Plague Year: Defoe’s Contributions to Public Opinion

In 1722, writer Daniel Defoe published *A Journal of the Plague Year* - a compelling account of London’s plague epidemic in 1665. The observations of the novel’s protagonist H.F. are disguised as a true narrative, and in fact, much of it is an accurate representation of the event, and daily life in the city during the outbreak.¹¹⁸ Defoe printed this memoir just two years after the plague in Marseilles; in the first year alone, the infection killed an estimated forty to sixty thousand people.¹¹⁹ The author feared England would soon be visited with yet another catastrophe similar to the one experienced in 1665, when Defoe himself was only five years old. Although the main character of Defoe’s work formulates many hypotheses and draws a series of conclusions regarding the plague that are now inoperative in light of modern science, it represents a valuable source of historical insight into an eyewitness’ opinions of the ways in

¹¹⁷ The Explainer, *Distinct Notions of the Plague, with the Rise and Fall of Pestilential Contagion* (London, 1722), 97, accessed January 20, 2014, Eighteenth Century Collections Online, <http://galegroup.com>.

¹¹⁸ Daniel Defoe, *A Journal of the Plague Year*, ed. Paula Backscheider, (New York, N.Y.: Norton & Company, Inc., 1992), Preface.

¹¹⁹ *Ibid.*

which the city of London should address the chaos of plague if an epidemic similar to the one in 1665, struck again.

Aside from the striking imagery and observations portrayed in Defoe's *Journal*, the story also serves as propaganda for the author's support of English government policy. During the time this novel was published, many citizens expressed disapproval of the country's decision to quarantine ships and merchandise arriving from plague-stricken areas. Defoe in particular supported maritime quarantine, but took a firm stance against the shutting up of infected houses and entire cities or towns, and his response had a significant impact on the alteration of the Quarantine Act of 1721 the following year.¹²⁰ In *A Journal of the Plague Year* the story's protagonist himself promotes the quarantine of trade goods, and declares that despite the inconveniences the procedure imposed on merchants during the plague in 1665, it was in essence, necessary.¹²¹

In particular, Defoe advocated maritime quarantine, arguing that neglecting the procedure would prove fatal to the population. H.F. assessed the likelihood that plague could be transmitted through trade, and often arrived at conflicting conclusions. In *A Journal of the Plague Year*, he describes:

“But they were detected sometimes and punished, that is to say, their goods confiscated, and ships also; for if it was true, that our manufacturers, as well as our people, were infected, and that it was dangerous to touch or to open, and receive the smell of them; then those people ran the hazard by the clandestine trade, not only of carrying the contagion into their own country but also of infecting the nations to whom they traded with those goods; which, considering how many lives might be lost in consequence of such an action, must be a trade that no men of conscience could suffer themselves to be concerned in.”¹²²

¹²⁰ Ibid.

¹²¹ Defoe, *A Journal of the Plague Year*, 67.

¹²² Ibid., 169.

Here, H.F. discusses the smuggling of trade goods that frequently occurred during the plague in 1665 as a result of the harsh quarantine retributions put into place. However, as a result of the danger and recurrence of these illegal operations, the cruelty of punishments for running goods escalated in many nations, including England.¹²³ But just as well, Defoe's character examines the plausibility in seventeenth century presumptions that merchandise aboard ships could retain the infection or receive it from an infected person. For H.F., nine weeks - the average length of quarantine - seemed an excessive amount of time for the crew or passengers of a ship arriving from an infected region to not only develop symptoms of plague, but to be able to hide them, and spread it to other individuals once the period of isolation ended.¹²⁴

In addition to Defoe's *A Journal of the Plague Year*, the author's response to plague and government policy appeared in the London based newspaper *Applebee's Original Weekly Journal*, to which Defoe was a frequent contributor.¹²⁵ Similar to the controversy mentioned by H.F. in *A Journal*, Defoe produced a column on July 29, 1721 that addressed the necessity of the quarantining of ships in England during the plague epidemic in Marseilles:

“The damage of obliging ships to quarantine, is ...very considerable to the merchants...yet all this we cheerfully submit to for the reason of it; 'tis allowed to be just, to be necessary...But if one villain can pass the barriers set – if one man can escape out of these ships...he may lodge the plague among us...and we are all undone.”¹²⁶

Here, the journalist acknowledges the effects that quarantine imposed on merchants and the overall system of trade; however, he does not agree with many of his fellow English citizens that those inconveniences outweigh the benefit of preventing the plague from entering England from abroad. Defoe went on to argue that if tradesmen were granted the ability to import and export

¹²³ Ibid.

¹²⁴ Defoe, *A Journal of the Plague Year*, 155-62.

¹²⁵ Maximillian Novak, "Daniel Defoe and *Applebee's Original Weekly Journal*: An Attempt at Re-Attribution," *Eighteenth-Century Studies* 45, no. 4 (2012): 585-6, accessed February 27, 2014, <http://muse.jhu.edu/>

¹²⁶ Daniel Defoe, *A Journal of the Plague Year*, ed. Paula Backscheider, (New York, N.Y.: Norton & Company, Inc., 1992), 218-19.

merchandise as they pleased, without the harsh restrictions of quarantine, they would not only be placing themselves at risk, but the entire country as well. “What we venture for ourselves,” Defoe continued, “is one thing, but when we venture for other people, and that without their consent, too, we so far as injure them; and if the danger be of life, we are so far guilty of their death.”¹²⁷

In *Applebee*'s columns, the writer also addressed household and city quarantine, to which he was strongly opposed. To Defoe, such measures would bring about nothing but suffering and degradation to London, as it had already done in France – both in Marseilles and in the port city of Toulon.¹²⁸ In May of 1720, Defoe wrote on the plague in southeast France, and the current state of its people, “The numbers that dye everyday in the city, are diversely reported; some say about two hundred – others, that there die above three hundred a day, but that as many perish for want of food – that is, are starved to death, as dye of the plague.”¹²⁹ A few months later in October, Defoe reported on the plague in Marseilles:

“The want of provisions, which is such, and the condition of the inhabitants has been thereby rendered so desperate, that the country people not daring bring provision to them, the several bodies of the people – furious and raging for mere hunger – have cut the guards in pieces at the gates, have broken out, sword in hand, and made their way into the country to seek bread.”¹³⁰

Defoe ultimately felt that if the English government established boundary lines around the city of London, or other towns, that the country would be disconnected from trade the way it had been during the epidemic of 1665, and would thus succumb to the same devastation that France was currently experiencing. Therefore, in the author's mind, household quarantine was not only socially unjust but economically disadvantageous as well.

¹²⁷ Ibid., 221.

¹²⁸ A seaport in southern France; Defoe, *A Journal of the Plague Year*, 219-20.

¹²⁹ Ibid.

¹³⁰ Ibid.

In addition to Defoe's reactions and his political influence as a writer, as well as the public reactions that circulated throughout England in response to medial discourses and government protocol, the House of Lords received criticism from London's Lord Mayor, aldermen, and merchants of the city who petitioned several clauses of the Quarantine Act established in 1721.¹³¹ Petitioners remained agitated due to the harsh policies being imposed upon them, which not only threatened the safety of London's citizens, but also demonstrated an overall infringement upon their rights.¹³² The first clause of the 1721 Act under petition dealt with the authority of officials to employ violence toward individuals who refused to abide by the new laws. This article also gave the government jurisdiction to charge persons who did not comply with the procedures as felons, resulting in death without the possibility of being tried in a secular court in the presence of clergy, a useful device of English law employed by criminals in hopes of avoiding the death penalty.¹³³

The second clause up for repeal allowed watchmen and other officials to remove infected persons, or individuals suspected of being infected with the plague to a pest house or lazaret, accompanied with the ability to utilize arbitrary force or violence in the event that citizens did not comply with the process.¹³⁴ To the public, the expeditious and forceful removal of individuals from their homes by the government, whether they were infected with plague or not, was a violation of their privileges as citizens of a mild and free government.¹³⁵

The third clause under scrutiny allowed boundary lines to be drawn around infected cities or towns, as well as those suspected of infection, which prevented any communication between

¹³¹ *A Collection of the Parliamentary Debates in England, from the Year 1668 to the Present Time*. (London, 1741), accessed January 20, 2014, <http://books.google.com>.

¹³² *Ibid.*, 178.

¹³³ *Ibid.*, 179.

¹³⁴ *A Collection of the Parliamentary Debates in England, from the Year 1668 to the Present Time*. (London, 1741), 179, accessed January 20, 2014, <http://books.google.com>.

¹³⁵ *Ibid.*, 184; During the majority of the eighteenth century, France was ruled under an absolute monarchy, while England was governed by a constitutional monarchy and a parliamentary system.

these designated areas. The citizens of London argued that such a measure made it impossible for them to have access to provisions and ultimately, to be able to trade with nearby regions, which would in turn create destitution within the city's walls. Just as well, the implementation of boundary lines was a new method to England borrowed from France - a country that, during the time of the amended Quarantine Act in 1721 endured a devastating outbreak of plague.

Therefore, given its ineffectiveness at preventing plague in the south, it seemed doubtful to critics such as Defoe that it could prove to be any different in England. In addition to the potential degradation of trade and business, and danger to the community, the measure required a significant number of guards to be stationed along the perimeter in order to be effectual. Overall, Parliament ruled that the government could not effectively maintain such boundary lines without infringing upon the rights of English citizens.

Despite pleas, Parliament only acknowledged and instituted two of the three appeals made by London's citizens: the drawing of boundary lines around infected towns and cities, and the authority of officials to remove persons suspected of having plague to a pest-house or lazaret. When the petitions were initially rejected, several member of the House of Lords protested in favor of the city for various reasons, some of them being:

“The liberty of petitioning the King is the birth-right of the free people of this realm...Because the petition so rejected was, in our opinion, every way proper and unexceptionable...Because the rejecting of said petition, tends, we conceive, to discountenance all petitions for the future, in cases of a public and general concern.”¹³⁶

In essence, the House of Lords ultimately recognized the right of the people as citizens of London to protest the legislation, aware that the rejection of the appeals could establish an unfair precedent in the case of future requests. Furthermore, the Lords felt that the English crown

¹³⁶ *A Collection of the Parliamentary Debates in England, from the Year 1668 to the Present Time.* (London, 1741), 181-3, accessed January 20, 2014, <http://books.google.com>.

already possessed the necessary power to prevent infection coming into England from abroad, and therefore, after hearing the appeals of the public felt that it was redundant to reiterate such authority within the amended Quarantine Act of 1721. As a result, Parliament revoked the use of boundary lines and the forced removal of individuals to lazarets the following year.¹³⁷

Maritime Quarantine Picks Up Speed

An outbreak of plague in Europe during the following decade led to the renewal of the previously amended Quarantine Act of 1721. Then, in 1743, owing to an especially serious threat of epidemic plague in Messina, Parliament renewed the statute of 1721 yet again, but with some slight modifications. Government officials ordered all ships and vessels destined for the Thames to perform quarantine at Stangate Creek – a quarantine site located on the south shore of Medway, which had hitherto been a destination for the airing of merchandise in special sheds, and the isolation of infected persons aboard their ships. As a result, Parliament urged quarantine administrators to construct a more permanent means for receiving and quarantining ships and goods; however, the temporary sheds remained adequate and individuals continued to perform the process aboard floating crafts or on the ships themselves.¹³⁸

In the years immediately following 1743, Mead introduced a ninth edition of his *Short Discourse*, and Parliament issued a fluctuation with regard to the length of time persons and ships were expected to undergo quarantine. In 1746, the English government terminated isolation policies altogether, however, Parliament renewed quarantine measures again the following year in 1747. In 1752, England revisited the previous plan to erect a permanent lazaret on Chetney

¹³⁷ Slack, *The Impact of Plague in Tudor and Stuart England*, 331.

¹³⁸ P Froggatt, "The Lazaret on Chetney Hill," *Medical History* 8, no. 1 (January 1964): 49, accessed March 1, 2014, <http://ncbi.nlm.nih.gov>.

Hill at Stangate Creek.¹³⁹ Parliament then renewed the Quarantine Act of 1721 for a third time, indefinitely, and with a more rigorous system granting the death penalty to any person who refused to perform or escaped from quarantine.¹⁴⁰ Owing to a few modifications, the Act set aside land for the building of future lazarets and did not require approval from the kingdom's monarch. The renewal obliged all ships performing quarantine to produce a Bill of Health granted by the British consul at the place of departure, which became absolutely necessary unless a ship or vessel had previously undergone quarantine or airing at another designated Mediterranean port.¹⁴¹ In other words, if any signs of plague were reported at a ship's place of departure, the vessel was unable to continue on directly to England. Rather, ships that received foul bills of health were required to perform quarantine at a foreign lazaret in addition to fulfilling the obligation of enduring a longer detention period than the standard forty days. Regardless of the validity of any purported cases of sickness, government officials enforced this procedure, intending for the utilization of foreign lazarets to be temporary until completion of the permanent lazaret on Chetney Hill.¹⁴² Places in the hands of quarantine administrators and customs officials, the practice of exposing infected goods on temporary, floating lazarets replaced the previous method of airing merchandise aboard a ship's deck. However, this new measure did not necessitate that officials conduct any medical inquiries regarding the health of the ship's crewmembers or any other individuals who underwent quarantine at temporary lazarets.

An absence of any recent threat from epidemic plague in combination with an ongoing trade rivalry with nearby France led the English government to postpone the construction of the

¹³⁹ Ibid.

¹⁴⁰ Ibid.

¹⁴¹ Ibid., 50; The ports of Malta, Ancona, Venice, Messina, Leghorn, Genoa, or Marseilles.

¹⁴² Ibid.

Stangate Creek lazaret for a third time since the plan was first introduced. Due to the perceived adequacy of the current floating lazarets already in existence at Stangate, and an overall deficiency of epidemic plague in nearby areas, the perpetual establishment on Chetney Hill became postponed indefinitely. However, when word of plague occurring in various parts of Poland reached the newspapers in Great Britain in 1770, a threat of pestilential outbreak in the country reemerged.¹⁴³ In response to the news, government officials instructed all ships arriving from the Baltic region to perform quarantine, just as they had done before sixty years earlier during the outbreak of epidemic plague at the time of the Great Northern War. In 1780, another report of plague in Poland led ships and vessels arriving from the Baltic Sea area with grain aboard to perform a mandatory forty-day quarantine, necessitating the process of opening and airing the merchandise. Eventually, customs officials classified grain, as well as corn, as “non-susceptible” items, able to be unpacked immediately at port.¹⁴⁴ In 1788, the Privy Council ordered that all ships designated to perform quarantine display a warning to other ships in the form of a yellow quarantine flag during the day, and a light located at topmast after dark.¹⁴⁵ This procedure also applied to ships within four leagues off the coast of Great Britain and Ireland, and failure to comply carried a fine of £200. Regardless of the fact that epidemic plague never did reenter into the kingdom, quarantine measures showed no signs of letting up, continuing well into the nineteenth century despite breakthroughs made in scientific evidence and medical knowledge.

¹⁴³ Milroy, *Quarantine and the Plague: Being a Summary of the Report on These Subjects, Recently Addressed to the Royal Academy of Medicine in France; with Introductory Observations, Extracts from Parliamentary Correspondence, and Notes*, 42.

¹⁴⁴ *Ibid.*, 42-3.

¹⁴⁵ *Ibid.*

Conclusion

Despite the long-standing disorder of maritime quarantine policies in England throughout the eighteenth century, and a constantly dissatisfied citizenship that ultimately regarded these measures as both ineffective and destructive, epidemic plague never did reenter into England after 1666. Learned physicians and contagionists continued to mimic the same empirical preventative measures and medical dogma published during the seventeenth century, and this ultimately served to justify the rigorous quarantine statutes put into place by Parliament. Instead of assigning the source of plague to the airborne exhalations of infected human beings, physicians focused their attention on the threat of direct contact with persons and even certain materials. Doctors like Mead remained persistent, relentlessly presenting traditional observations about disease as new and improved, when in actuality their actions resulted from a lack of concrete evidence or knowledge. Fueled by various enigmatic accounts of the origin of plague's transmission, English quarantine law during the eighteenth century remained chaotic and controversial.

These perceptions shifted from theories of contagion to the belief that objects such as clothing and bedding, as well as other goods, were able to retain disease for an adequate length of time and eventually (or instantaneously, depending upon various accounts) infect anyone who came into contact with them. Temporary lazarets constructed for the purpose of airing out merchandise provided reassurance that the "necessary" actions to prevent plague from entering England were being taken, but it also ignited a large amount of opposition from the citizens directly affected by these procedures. Narratives such as Daniel Defoe's *A Journal of the Plague Year* depicted the militaristic tendencies of household quarantine as cruel and inhumane given it required many individuals to abandon friends and family – a necessity that not only deemed the

measure immoral, but irreligious as well.¹⁴⁶ Although the amendment of the Quarantine Act of 1721 revoked the shutting up of healthy and sick individuals under the same roof, and the forceful removal of ill persons to pest houses, rigorous maritime preventative action endured throughout the eighteenth century until the threat of plague had dissipated entirely.

Given the benefits of modern science and the hindsight that has been gained from it, it is of course obsolete to critique the arbitrary methods of eighteenth century quarantine in the context of current knowledge. The reasons behind incidences of plague could not be entirely understood until its epidemiology had been fully worked out and this did not occur until the end of the nineteenth century with the discovery of the bubonic plague bacterium. For centuries kingdoms and countries adopted quarantine as a mechanism in the attempt to control outbreaks of infectious disease, and this public health measure eventually went on to address subsequent surges of other infectious diseases such as cholera, yellow fever, and smallpox.¹⁴⁷

Quarantine, even in its contemporary form, has yet to remain entirely agreeable. The isolation and separation of infected individuals in response to epidemics has persevered throughout history as an effective public health measure, and yet, its various legal and ethical issues prevent it from being classified as the appropriate solution to all epidemiological problems. A prime and more recent example of this argument can be seen in the extensive and various health approaches used to address AIDS. Despite the stigmatized responses to the disease that emerged during the onset of widespread HIV infections in the United States during the 1980's, quarantine was visited as an option by the federal government but its implementation against the epidemic was never forged into a reality. During the SARS outbreak in 2003, the CDC merely advised individuals that were exposed to the virus to undergo an at-home isolation,

¹⁴⁶ Newman, "Shutt Up: Bubonic Plague and Quarantine in Early Modern England," 45.

¹⁴⁷ Conti, "Quarantine Through History," 462.

but countries such as Taiwan utilized quarantine and considered it an important tactic in managing the spread of the infection.¹⁴⁸ In 2009, during the influenza H1N1 pandemic, various countries resorted to quarantine practices after the virus had managed to spread to 74 countries within the span of three months.¹⁴⁹

Although largely abandoned for over a century, the process of quarantining of individuals on a massive scale could very well be experienced again in the future. Therefore, understanding the procedure's historical influence and the notions of disease that played a prominent role in shaping its effectiveness in centuries past remains applicable, even with regard to society's advanced medical knowledge. The empirical arguments of a single physician ultimately guided quarantine practice and its role in government protocol during the majority of the eighteenth century, and although Mead succeeded in advancing concepts of contagion much further than what had been known up that point, his preventative measures regarding plague went on to affect the social, political, and economic state of an entire kingdom

¹⁴⁸ Hsieh et al, "Quarantine for SARS, Taiwan," *Emerging Infectious Diseases* 11, no. 2 (February 2005): 278–9, accessed March 3, 2014, <http://ncbi.nlm.nih.gov>.

¹⁴⁹ Chu et al, "Quarantine Methods and Prevention of Secondary Outbreak of Pandemic (H1N1) 2009," *Emerging Infectious Diseases* 16, no. 8 (August 2010): 1300–02, accessed March 4, 2014, <http://ncbi.nlm.nih.gov>.

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