

The Black Death, an Unforeseen Exchange:
Europe's Encounter with Pandemic Sparked an Age of Exploration

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“Europe’s Renaissance, or ‘rebirth,’ was forged in the crucible of its terrible yet transcendent ordeal with the Black Death ”
-John Aberth, historian¹

The Black Death pandemic is historically known for decimating the European population. However, this pandemic brought positive consequences to European society. European kingdoms inadvertently encountered the plague while exploring and expanding new ways to exchange goods with Asia in 1347 C.E., ultimately causing one of the most disastrous pandemics in Europe that lasted until 1351. The plague devastated Europe by killing approximately a third of the population. Furthermore, Europe’s encounter with plague had economic, social, and religious effects that vastly changed European society and contributed to Europe’s emergence into the Renaissance, an age of exploration.

History of Plague in Europe

Prior to the medieval European pandemic, plague was not new to Europe, but its effects were confined due to limited exchange. Plague, a bacterial disease afflicting humans,² has three clinical forms depending on the body system that is first attacked: the lymphatic, circulatory or respiratory systems.³ All three clinical forms caused the Plague of Justinian in the Byzantine Empire from 541-542 C.E.⁴ This “First Plague Pandemic”⁵ spread rapidly across the Byzantine

¹Aberth, John. *The Black Death: The Great Mortality of 1348-1350: A Brief History with Documents*. Boston, MA: Bedford/St. Martin's, 2005. Print.

²Haensch, Stephanie. "Distinct Clones of *Yersinia Pestis* Caused the Black Death." *PLoS Pathog PLoS Pathogens* 6.10 (2010): n. pag. Web.

³"History of Plague." *Centers for Disease Control and Prevention*. Centers for Disease Control and Prevention, 18 Nov. 2014. Web. 08 July 2015.

⁴Procopius, and Richard Atwater. *Secret History*. Ann Arbor: U of Michigan, 1961. Web.

⁵Frith, John. "History of Plague: The Three Great Pandemics." *Journal of Military and Veterans' Health* 20.2 (2012): n. pag. *Journal of Military and Veterans' Health*. Australasian Military Medicine Association, Apr. 2012. Web. 13 July 2015.

Empire.⁶ However, the pandemic was limited to Mediterranean trade routes and never spread further into Europe.⁷

The Plague of Justinian had devastating effects, killing an estimated 25 million during the initial outbreak and subsequent recurrences for the next two centuries.⁸ This reduced exchange and caused economic disruptions, food shortages, and reduced tax revenues.⁹ Seven centuries later, plague reappeared in Europe during the “Second Plague Pandemic”¹⁰ in the fourteenth century.

Europe Before Its Deadly Encounter

Prior to the pandemic, Europe was under a feudalistic social system, closely related to the prevalent economic system of manorialism.¹¹ Peasants worked for noble landlords in exchange for protection and use of land. A majority of these peasants were serfs, bound to isolated manorial estates and obliged to their landlords.¹² Consequently, there was a disparity between social classes: the rich were exceedingly rich and the poor were exceedingly poor.¹³

⁶Halsall, Paul. "Medieval Sourcebook: Procopius: The Plague, 542." *Internet History Sourcebooks Project*. Fordham University, 1998. Web. 25 Jan. 2016.

⁷Than, Ker. "Two of History's Deadliest Plagues Were Linked, With Implications for Another Outbreak." *National Geographic*. National Geographic Society, 31 Jan. 2014. Web. 24 Jan. 2016.

⁸Choi, Charles Q. "Plague Helped Bring Down Roman Empire, Graveyard Suggests." *LiveScience*. TechMedia Network, 10 May 2013. Web. 29 Feb. 2016.

⁹North, Joshua. "The Death Toll of Justinian's Plague and Its Effects on the Byzantine Empire." *The Death Toll of Justinian's Plague and Its Effects on the Byzantine Empire*. Armstrong State University, 2014. Web. 24 Jan. 2016.

¹⁰Frith, John. "History of Plague: The Three Great Pandemics." *Journal of Military and Veterans' Health* 20.2 (2012): n. pag. *Journal of Military and Veterans' Health*. Australasian Military Medicine Association, Apr. 2012. Web. 13 July 2015.

¹¹Jupp, Kenneth. "European Feudalism from Its Emergence through Its Decline." *American Journal of Economics and Sociology* 59.5 (2000): 27-45. Print.

¹²Hanawalt, Barbara. *The Ties That Bound: Peasant Families in Medieval England*. New York: Oxford UP, 1986. Print.

¹³Dunn, John M. *Life During the Black Death*. San Diego: Lucent, 2000. Print.

Religion, primarily Catholicism, holding great importance in European society, was ubiquitous in Europe during this period. The Bible was available only in Latin and people depended on the clergy to understand it.¹⁴ Anything beyond human control, good or bad, was considered to be of divine consequence.¹⁵ People would turn to the Church for help, guidance, and healing. The Church controlled medical practice as clergy members were the only permitted medical practitioners.¹⁶ Because of this, treatments were limited to the Church's teachings. Additionally, the Church limited scientific learning. While scientific advances occurred during this time, especially in the fields of natural sciences at previously established universities, the Church shunned advances that challenged theology.¹⁷ Organized public health efforts were also prohibited, being seen as attempts to avoid God's will.¹⁸

Explorations and Conditions Increasing Susceptibility to Plague

In the centuries leading up to the fourteenth, Europe became prime for a pandemic: exchange of goods increased, population skyrocketed and urbanized, living conditions became unsanitary, and health care became inadequate. The Crusades were a series of religious wars beginning in 1095.¹⁹ Europeans rarely traveled to the near east before the Crusades. However,

¹⁴Pennington. "The Black Death and its Religious Impact." Catholic University of America, Washington D.C. *The Black Death and its Religious Impact*. Web. 13 July 2015.

¹⁵Murdoch, Vaclav, and G S. Couse. *Essays on the Reconstruction of Medieval History*. Montreal: McGill-Queen's University Press, 1974. Print.

¹⁶Wudka, Jose. "The Middle Ages." *The Middle Ages*. University of California, Riverside, 24 Sept. 1998. Web. 24 Jan. 2016.

¹⁷Thijssen, Hans. "Condemnation of 1277." *Stanford Encyclopedia of Philosophy*. Stanford University, 30 Jan.2003. Web. 24 Jan. 2016.

¹⁸Cipolla, Carlo M. *Public Health and the Medical Profession in the Renaissance*. Cambridge: Cambridge UP, 1976. Print.

¹⁹Abels, Richard. "Timeline for the Crusades and Christian Holy War." Age of Chivalry and Faith. United States Naval Academy, n.d. Web. 1 Apr. 2016.

during the Crusades commodities like silk and spices that were rare in Europe were rediscovered, sparking an increased desire for trade and interest in new trade routes to Asia.²⁰ Exchange became more common between individuals, kingdoms, and continents.²¹ As a result, European kingdoms began to explore new trade routes and commerce expanded substantially in the thirteenth century, increasing urbanization and dense living conditions.²²

Along with the increase in urbanization, the general population increased as well. In earlier centuries, Europe experienced the effects of a slight global warming, known as the “Medieval Warming Period”²³ following the natural pattern of global warming and cooling. This created wetter summers and shorter winters, climatic conditions ideal for agricultural production. With an abundance of food, people had more children and lived longer, causing substantial population increases.²⁴ However, as time passed, the population outpaced the development of resources in Europe.

Many Europeans lived in unsanitary and squalid conditions. People in cities lived in close contact and interacted with disease vectors like rodents and waste.²⁵ A vector unknown at the time, rodents were commonplace in even the wealthiest of homes. After the fall of the western Roman Empire, infrastructure crumbled, resulting in people sharing water sources and waste

²⁰Bradley, Cameron. "Interview with Dr. Cameron Bradley, Assistant Professor of Medieval Studies at Macalester College." Personal interview. 5 Apr. 2016.

²¹Hamerow, Helena. "Trade, Exchange and Urbanization." *The Oxford Handbook of Anglo-Saxon Archaeology*. Ed. Sally Crawford. N.p.: Oxford UP, 2011. 503-14. Print.

²²Pappas, Lee. "World History from the Renaissance to Imperialism" *Fifteenth Century Europe: Social and Economic Changes*. Sam Houston State University, n.d. Web. 29 Feb. 2016.

²³"Was There a Little Ice Age and a Medieval Warm Period?" The Scientific Basis. Intergovernmental Panel on Climate Change, n.d. Web. 10 July 2015.

²⁴Reyerson, Kathryn. "Interview with Dr. Kathryn Reyerson, Professor of Medieval Studies at the University of Minnesota." Personal interview. 1 Apr. 2016.

²⁵Dobson, Mary J. "Plague." *Disease: The Extraordinary Stories behind History's Deadliest Killers*. London, Great Britain: Quercus, 2007. 8-19. Print.

running through streets due to the lack of running water and sewers.²⁶ Even isolated countryside manors experienced these squalid conditions.

Disastrous Encounters Preceding the Pandemic

Calamitous crises helped plague reach and spread through an already susceptible Europe. The Great Famine of 1315, caused by the population increases and a sudden cooling of the medieval climate,²⁷ led to the deaths of approximately 10% of the population.²⁸ Much of Europe was left malnourished and weakened, causing higher mortality rates from the plague than in the past.²⁹

In the 1330s, Asian kingdoms encountered plague while exploring new trade routes that ran through central Asia where the bacteria was indigenous. Plague caused a pandemic in Asia, killing millions.³⁰ The plague's threat to Europe increased as it traveled along trading routes, many of which were created previously when Europe explored new trading routes.³¹

In 1346, plague-ridden Tatar Mongols besieged Kaffa, a trading center on the Crimean peninsula populated primarily by European traders.³² An Italian in Kaffa, Gabriele de' Mussi,

²⁶Dunn, John M. *Life During the Black Death*. San Diego: Lucent, 2000. Print.

²⁷Mann, Michael E. "Little Ice Age." Thesis. University of Virginia, n.d. *Encyclopedia of Global Environmental Change* (2002): 504-09. *Penn State Department of Meteorology*. Web. 10 July 2015.

²⁸Jordan, William C. *The Great Famine: Northern Europe in the Early Fourteenth Century*. Princeton, NJ: Princeton UP, 1996. Web.

²⁹DeWitte, Sharon N. "Selectivity of Black Death Mortality with Respect to Preexisting Health." Thesis. University of California, Berkeley, 2008. *Selectivity of Black Death Mortality with Respect to Preexisting Health*. The National Academy of Sciences of the USA, 2008. Web. 24 Jan. 2016.

³⁰Dobson, Mary J. "Plague." *Disease: The Extraordinary Stories behind History's Deadliest Killers*. London, Great Britain: Quercus, 2007. 8-19. Print.

³¹Hirst, L. F. "Conquest Of Plague." *The British Medical Journal* 2.4851 (1953): 1432-433. *JSTOR*. Web.

³²Wheelis, Mark. "Biological Warfare at the 1346 Siege of Kaffa." *Emerging Infectious Diseases* 8.9 (2002): 971-75. *Biological Warfare at the 1346 Siege of Kaffa*. Centers for Disease Control and Prevention, 16 July 2010. Web. 13 July 2015.

noted that the Tatar leader “ordered infected corpses to be placed in catapults and lobbed into the city in hope that the intolerable stench would kill everyone inside...”³³ These actions, combined with infected rats in the city, caused many in Kaffa to encounter plague unintentionally before fleeing back to Europe.

At the same time, the wartime conditions of the Hundred Years’ War of 1337-1453 between England and France primed the spread of disease.³⁴ Plague spread easily among troops interacting in close quarters. On the front lines, medical treatments were devoted to treating battle wounds rather than treating disease. Soldiers would sometimes encounter the disease in battle and spread it upon returning home.³⁵

Europe Encounters the Black Death

In 1347, the plague spread via land exchange routes to eastern Europe and via sea trading routes to Mediterranean kingdoms, then swept north, ravaging every town it encountered. Traders fleeing plague-ridden Kaffa unintentionally brought the disease to Constantinople,³⁶ a large coastal trading city located between Asia and Europe, after which it spread rapidly to Europe.³⁷ In late 1347, following the infection of Constantinople, Sicily and Greece encountered plague through exchange with infected traders.³⁸ From these primary starting points, the plague

³³De' Mussi, Gabriele. "Gabriele De' Mussi of Piacenza Describes the Plague in 1347:." n.d.: n. pag. New York University. Web. 13 July 2015.

³⁴"The Black Death: Horseman of the Apocalypse in the Fourteenth Century." The Black Death. Marquette University, n.d. Web. 11 July 2015.

³⁵Patrone, Michelle. "The Hundred Years’ War and the Plague." *World History*. CDA World History, n.d. Web. 24 Jan. 2016.

³⁶Gregoras, Nicephorus. "Historia Byzantina." 1348. *The Black Death: The Great Mortality of 1348-1350: A Brief History with Documents*. Boston: Bedford/St. Martin's, 2005. Print.

³⁷Senker, Cath. *The Black Death 1347-1350: The Plague Spreads across Europe*. Chicago, IL: Raintree, 2006. Print.

³⁸Wheelis, Mark. "Initial Spread of Plague in the 14th Century." *Emerging Infectious Diseases*. 9th ed. Vol. 8. Atlanta: Centers for Disease Control and Prevention, 2002. N. pag. *Biological Warfare at the 1346 Siege of Kaffa*. Web. 11 July 2015.

spread north and west, reaching as far as Scandinavia by 1351 (See Appendix A). By 1353, all of the Eurasian landmass and much of North Africa had encountered the plague and approximately a third of Europe had perished.³⁹ (See Appendix B)

The Black Death pandemic devastated Europe and impacted many aspects of European society. With upwards of 20 million dead, life was at a standstill and there were not enough living to bury the dead.⁴⁰ Trade declined and social order collapsed so that many people feared leaving home.⁴¹ Those who left fled to the countryside, causing a brief de-urbanization.⁴² Countryside conditions, unfortunately, were no better than cities; entire villages had been wiped out by the plague.⁴³

Consequences of the Devastating Exchange

In the decades following the pandemic, Europe experienced significant economic, social, scientific, and religious changes. The first economic change was the shift in the value of land and goods. Many workers died, creating difficulties for landowners to produce goods. Obtaining goods through trade also proved to be difficult because exchange decreased in fear of encountering the disease. Both caused an inflation in prices for goods.⁴⁴ Conversely, land values deflated. In the century leading up to the pandemic, the cost for land rose consistently. Later,

³⁹Benedictow, Ole J. *The Black Death, 1346-1353: The Complete History*. Woodbridge, Suffolk, UK: Boydell Press, 2004. Print.

⁴⁰Dene, William. "The Situation in Rochester." [Rochester] 1349: n. pag. *University of Arizona*. Web. 8 July 2015.

⁴¹Di Tura, Agnolo. *The Plague in Siena: An Italian Chronicle*. Trans. William M. Bowsky. *Cronica Maggiore*. New York: Holt, Rinehart and Winston, 1971. N. pag. Print.

⁴²Boccaccio, Giovanni, John Payne, and Charles S. Singleton. *Decameron*. Berkeley: University of California Press, 1982. Web.

⁴³Damen, Mark. "The Black Death." *USU 1320: History and Civilization*. Utah State University, Logan, Utah. *USU 1320: History and Civilization*. Web.

⁴⁴"The Plague." *Decameron Web*. Brown University, 18 Feb. 2010. Web. 13 July 2015.

after many landowners died, land was abundant and prices dropped drastically.⁴⁵ These lower prices allowed more people to purchase land that was previously unaffordable.

The consequences of the pandemic inspired peasants' exploration of revolutionary ideas and the creation of poor laws.⁴⁶ Peasants had died in great numbers, as illustrated by Giovanni Boccaccio in his *Decameron*:

The plight of the lower and most of the middle classes was even more pitiful to behold. Most of them remained in their houses, either through poverty or in hopes of safety, and fell sick by the thousands. Since they received no care and attention, almost all of them died.⁴⁷

The labor supply plummeted. Peasants realized they could demand higher wages. In England, King Edward III sought to quell these demands by issuing the Statute of Laborers, a draconian decree requiring every able-bodied unemployed person under sixty to work for anyone who wanted to hire him.⁴⁸ Violators of the Statute of Laborers were fined. However, this did not stop the peasants' demands, as described by Henry Knighton:

The workers, nevertheless, were so elated and contrary that they did not heed the mandate of the king [prohibiting higher wages] but if anyone wanted to hire them, he had to give them as the desired; either lose their crops and fruit or grant the selfish and lofty wishes of the workers.⁴⁹

Peasant uprisings continued during the fourteenth century throughout Europe as exemplified by the Jacquerie in France in 1358, the Ciompi Revolt in 1378 in Italy, and Wat Tyler's Rebellion in

⁴⁵Herlihy, David, and Samuel K. Cohn. *The Black Death and the Transformation of the West*. Cambridge, Mass: Harvard University Press, 1997. Print.

⁴⁶Quigley, William P. "Five Hundred Years of English Poor Laws, 1349-1834: Regulating the Working and Nonworking Poor." *University of Akron Law Review*. University of Akron, n.d. Web. 29 Feb. 2016.

⁴⁷Boccaccio, Giovanni, John Payne, and Charles S. Singleton. *Decameron*. Berkeley: University of California Press, 1982. Web.

⁴⁸Edward III. "The Statute of Laborers, 1351." The Avalon Project (n.d.): n. pag. The Avalon Project : The Statute of Laborers; 1351. Yale Law School. Web. 27 Feb. 2016.

⁴⁹Downs, Norton, and Michael Zwieter. *Basic Documents in Medieval History*. Princeton, N.J: Van Nostrand, 1959. Print.

England in 1381.⁵⁰ The peasant rebellions started as small whispers of discontent, gaining scope quickly, leading to increased wages and expanded rights.⁵¹

Increased wages empowered peasants, causing serfdom to disappear in many places, triggering the decline of manorialism.⁵² The demand for labor was so high it threatened manorial holdings. Serfs, no longer tied to one landlord, could easily leave for another who would hire them. The lords had to make accommodations in order to keep peasants on their land. However, many serfs explored new labor options and ultimately became vagrant migratory workers.⁵³ Lacking an assured labor supply, many previously self-sufficient manors collapsed, increasing the need for merchants and causing reurbanization as cities could provide for their inhabitants without requiring serfdom.⁵⁴

Medical practice and health protocols improved after the pandemic. While medical practice was still outlawed for those not affiliated with the Church, more people turned to independent practitioners, allowing exploration into treatments extending beyond Church doctrine.⁵⁵ Governments followed suit with many European governments creating efficient public health protocols.⁵⁶ As an early example, the Council of People in Pistoia, Italy created a series of health ordinances at the height of the outbreak in an attempt to quell the

⁵⁰Cowie, Leonard W. *The Black Death and Peasants' Revolt*. London: Wayland, 1986. Print.

⁵¹Haskell, Douglas A., Andrew T. Hill, and Jane S. Lopus. "The Economic Impact of the Black Death of 1347-1352." FOCUS: World History. New York: Council for Economic Education, n.d. 240-48. Web.

⁵²Pappas, Lee. "World History from the Renaissance to Imperialism" Fifteenth Century Europe: Social and Economic Changes. Sam Houston State University, n.d. Web. 29 Feb. 2016.

⁵³Quigley, William P. "Five Hundred Years of English Poor Laws, 1349-1834: Regulating the Working and Nonworking Poor." University of Akron Law Review. University of Akron, n.d. Web. 29 Feb. 2016.

⁵⁴Damen, Mark. "The Black Death." USU 1320: History and Civilization. Utah State University, Logan, Utah. USU 1320: History and Civilization. Web.

⁵⁵Conrad, Lawrence I. *The Western Medical Tradition: 800 B.C.-1800 A.D.* Cambridge, Eng.: Cambridge UP, 1995. Print.

⁵⁶Cipolla, Carlo M. *Public Health and the Medical Profession in the Renaissance*. Cambridge: Cambridge UP, 1976. Print.

pandemic.⁵⁷ Additionally, early forms of quarantine were developed;⁵⁸ infected ships were required to wait in the harbor and those who were sick were not allowed to enter cities.⁵⁹

The effects of the pandemic immediately impacted people's religious beliefs, allowing for religious exploration. First, the Church lost many clergy members during the pandemic, as Henry Knighton described: "In Montpellier only seven friars were left from 149... At Marseilles only one Franciscan remained of 150..."⁶⁰ This loss of clergy, whom the public sought for medical and spiritual help, caused people to search for support from different sources, including independent medical practitioners and early Christian reformers.⁶¹ Additionally, people questioned why they were not saved from God's punishment, even though they gave generously to the Church.⁶² These two consequences of the pandemic contributed to a growing mistrust of the weakened Catholic Church that allowed for later religious reformations. Some people took religious matters into their own hands by practicing public self-flagellation, believing that atoning for their sins would repel the plague.⁶³ Flagellation was a part of a larger movement called the lay piety movement, a precursor to larger reformations, reflecting religious individualism.⁶⁴ A decade after the pandemic, early reformer John Wycliffe openly challenged

⁵⁷Buonacorsi, Simone. ORDINANCES FOR SANITATION IN A TIME OF MORTALITY. 1348. The list of ordinances of the city of Pistoia relative to the 1348 outbreak of plague. Pistoia, Italy.

⁵⁸Shackelford, Jole. "Interview with Dr. Jole Shackelford, Assistant Professor of the History of Medicine at the University of Minnesota." Personal interview. 5 Apr. 2016.

⁵⁹Sehdev, Paul S. "The Origin of Quarantine." *Clinical Infectious Diseases* 35.9 (2002): 1071-072. *JSTOR*. Web. 1 Apr. 2016.

⁶⁰Downs, Norton, and Michael Zwettler. *Basic Documents in Medieval History*. Princeton, N.J: Van Nostrand, 1959. Print.

⁶¹Dunn, John M. *Life During the Black Death*. San Diego: Lucent, 2000. Print.

⁶²Bovey, Alixe. "Church in the Middle Ages: From Dedication to Dissent." *The Middle Ages*. The British Library, 2007. Web. 25 Jan. 2016.

⁶³Beard, Elizabeth. "Public Penance, Public Salvation: An Exploration of the Black Death's Influence on the Flagellant Movement." *Journal of Undergraduate Research, University of California, Santa Cruz* (2013): n. pag. 2013. Web.

⁶⁴Knox, E. L. "Crisis in the Late Medieval Church." *The Late Medieval Church*. Boise State University, n.d. Web. 12 Apr. 2016.

the Church's authority by translating the Bible into English, as he wished for his countrymen to no longer be dependent on the Church for interpretation.⁶⁵

Alongside shaken religious faith, European culture was devastated. With the prevalence of unexpected death, the masses realized death's inevitability. Art in the years following the pandemic exemplified this mindset by showing its grim influence. Artists coped with the devastation by creating works featuring a new dark genre: the Dance of Death, or *Danse Macabre*.⁶⁶ This genre, an allegory on the universality of death, represented the notion that regardless of one's social status during life, everyone will dance the same dance of death in the end. Aside from this new genre, there was also a notable spike in morbid art, like the *Triumph of Death* by Pieter Bruegel (See Appendix C).⁶⁷ Additionally, the pandemic also influenced scholars and poets like Giovanni Boccaccio and Petrarch, an early humanist often hailed as the initiator of the Renaissance.⁶⁸

Critical Explorations in its Aftermath

The consequences of the Black Death pandemic allowed for explorations to occur that contributed to Europe's emergence into the Renaissance,⁶⁹ a turning point in Western thought defined by the revivals of Greek and Roman art and philosophy and by the exploration of ideas.⁷⁰ The pandemic greatly contributed to the transformation of Europe's economic and social

⁶⁵Dunn, John M. *Life During the Black Death*. San Diego: Lucent, 2000. Print.

⁶⁶Pollefeys, Patrick. "The Dance of Death." *La Mort Dans L'art*. N.p., 1996. Web. 13 July 2015.

⁶⁷Guido, Lisa. *Medieval and Renaissance Art*. Chicago: Art Institute of Chicago, 2002. Print.

⁶⁸Petrarca, Francesco. "Ad Seipsum." Letter to Himself. 1349. *Contemporary Perspectives*. Brown University, 12 Mar. 2010. Web. 13 July 2015.

⁶⁹Cantor, Norman F. *In the Wake of the Plague: The Black Death and the World It Made*. New York: Free Press, 2001. Print.

⁷⁰Huizinga, Johan. *Men and Ideas: History, the Middle Ages, the Renaissance : Essays*. New York: Meridian Books, 1959. Print.

systems. The increase of peasant wages and the subsequent decrease in wealth inequality quickened the decline of the manorial system and feudalism.⁷¹ With the demise of the manorial system, Europe began to develop mercantilism, an economic system where exports increase a nation's wealth.⁷² This wealth would be spent to compete against other nations by exploring new colonies and funding wars. Mercantilism was also the precursor to the current socio-economic system of capitalism.⁷³

The economic and social changes wrought by the plague generated wealth used to promote artistic advancements during the Renaissance. The excess of wealth created by the massive death toll put extra money in the hands of those who were already patrons of the arts.⁷⁴ Conspicuous consumption among the newly wealthy led to increased exploration and patronage of the arts.⁷⁵ For example, after nearly half the population in Florence perished, the families that grew wealthier included the Medicis, an already wealthy banking family that would become patrons of great Renaissance artists including da Vinci and Michelangelo.⁷⁶

Following the rise of the lay piety movement and early reformations after the pandemic, larger explorations in religious practices occurred. Religious mindsets had changed permanently from using religion to explaining the world's misfortunes to a spiritual role directed at

⁷¹Barnard, Bryn. "Smithereens: How the Black Death Smashed Feudal Europe." *Outbreak: Plagues That Changed History*. New York: Crown, 2005. 1-9. Print.

⁷²Broadberry, S. N., B. M. S. Campbell, Alexander Klein, Mark Overton, and Bas Van Leeuwen. *British Economic Growth, 1270-1870*. N.p.: n.p., n.d. Print.

⁷³Fulcher, James. *Capitalism: A Very Short Introduction*. Oxford: Oxford UP, 2004. Print.

⁷⁴Meiss, Millard. *Painting in Florence and Siena after the Black Death: The Arts, Religion and Society in the Mid-fourteenth Century*. New York: Harper & Row, 1964. Print.

⁷⁵Reyerson, Kathryn. "Interview with Dr. Kathryn Reyerson, Professor of Medieval Studies at the University of Minnesota." Personal interview. 1 Apr. 2016.

⁷⁶Whipps, Heather. "How the Wealthy Medici Changed the World." LiveScience. TechMedia Network, 04 May 2008. Web. 1 Apr. 2016.

self-salvation.⁷⁷ These religious implications and the resulting willingness of people to question standard Catholic doctrine were contributing factors in the emergence of Martin Luther's protestant reformation in the early 16th century,⁷⁸ along with other religious movements.⁷⁹

Conclusion

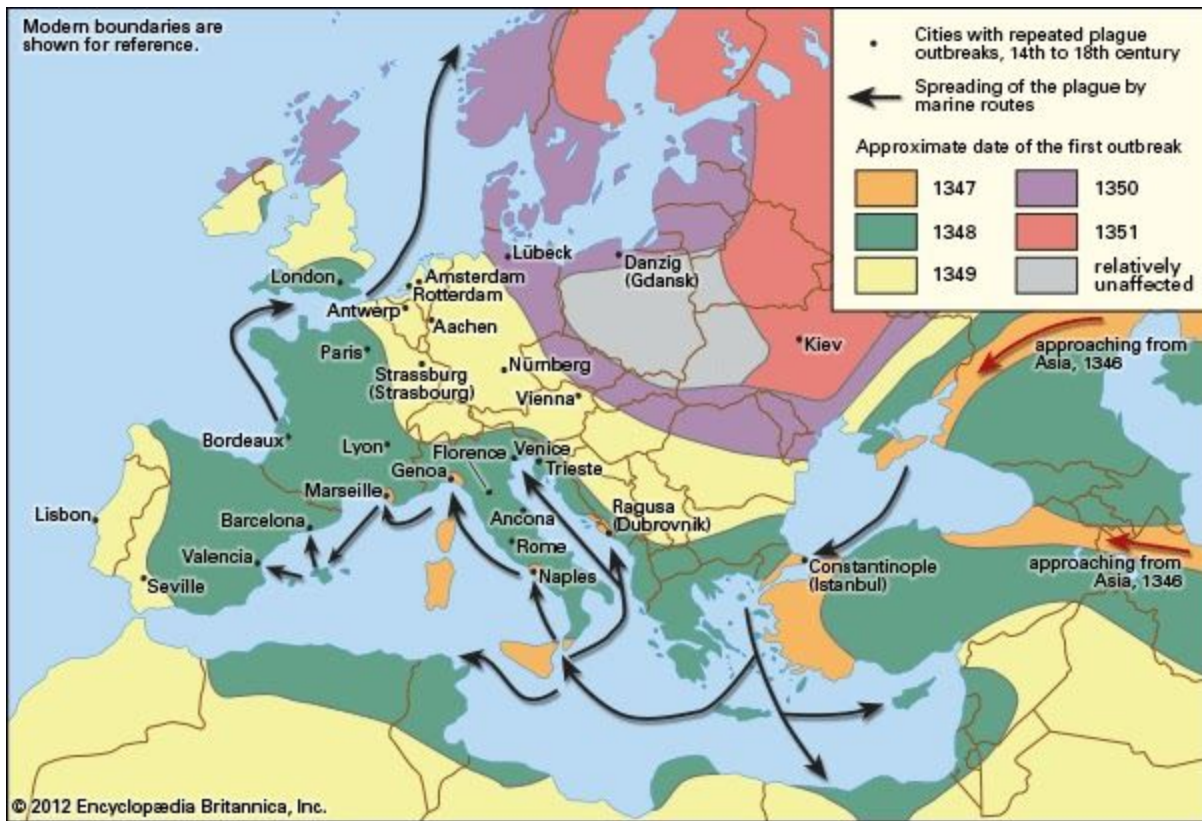
Fourteenth-century Europe, highly susceptible to disease, encountered the Black Death while exploring new methods to exchange goods with Asia. The resulting pandemic shook the foundations of European society, allowing new societal systems to develop and explorations into modern economic, religious, and scientific ideas to occur. Alongside these explorations, the pandemic changed Europe's culture and society in the fourteenth century. Cultural and religious explorations, a shattered feudal system, the eradication of serfdom and a new sophisticated economic system, all outcomes of the plague pandemic, contributed to Europe's arrival into the Renaissance.

⁷⁷Bovey, Alixe. "Church in the Middle Ages: From Dedication to Dissent." *The Middle Ages*. The British Library, 2007. Web. 25 Jan. 2016.

⁷⁸Bishop, Paul A. "Martin Luther and the Protestant Reformation." *A History of Christian Doctrine (1978)*: n. pag. Hillsborough Community College. Web. 13 July 2015.

⁷⁹Thompson, Karl F. *Middle Ages, Renaissance, and Reformation*. New York: Harcourt, Brace & World, 1964. Print.

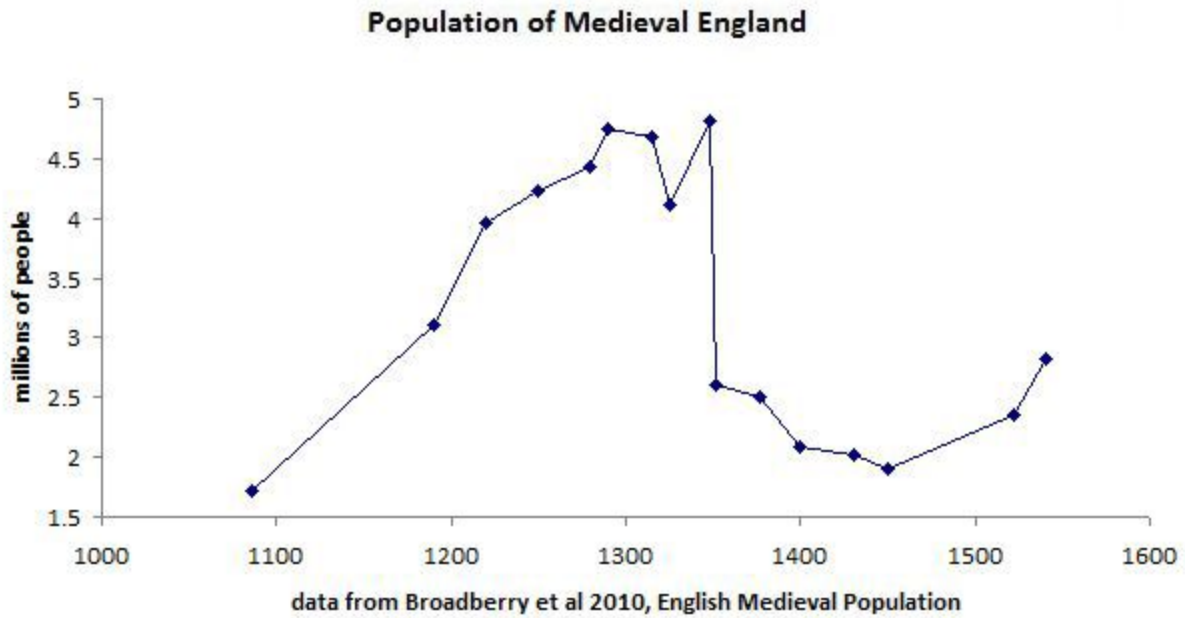
Appendix A



Spread of the Black Death." *Encyclopedia Britannica*. N.p., n.d. Web.

This map shows the spread of the Black Death in Europe and the years it struck each respective place.

Appendix B



"Population of Medieval England." *Medieval Population*. N.p., n.d. Web.
This graph shows the estimated population of medieval England based on Professor Stephen Broadberry's findings in his study, *Medieval Population*.

Appendix C



Bruegel, Pieter. *The Triumph of Death*. 1462. Museo Del Prado, Madrid, Spain. *Archaeology and Arts*. Web. 12 July 2015.

This painting depicts the macabre theme of death that became prevalent after the Black Death.