

http://www.nature.com/news/2011/111025/images/BDlead460.jpg

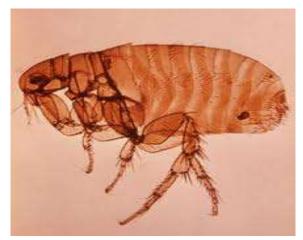
Background

The Middle Ages were a dark and dangerous time. When the Western Roman Empire fell in the year 476A.D. Europe slipped backwards into a perpetual state of chaos. There was no longer a strong central government, laws, armies, etc. and people's lives were forever changed. **Feudalism** and **manorialism** offered the common person stability and protection, in exchange for their loyalty and services. Europe was constantly at war with itself as kingdom fought kingdom. There was very little unity, except for the Christian faith. Europe was also invaded several times by the Vikings, Muslims (Moors), and barbarian tribes. As if daily life was not challenging enough, soon a new invader would enter Western Europe. This invader will kill indiscriminately and not care if you are rich, poor, king, priest, warrior, or peasant...



Origins

The **Black Death** or **Bubonic Plague** originated somewhere in central Asia (China). Fleas in this region became infected with bacteria (*Yersinia Pestis*) and began to spread the dangerous bacteria through their bites. When a flea bites an animal or human, they drink the blood. Fleas are **parasites** and depend on blood for nourishment and as their source of food. When the infected flea bites its victim, they also spit or regurgitate some of their saliva into the wound. This exchange of fluid allows the bacteria to get into the animal or human. Once inside, the bacteria will make animals and people sick. They prefer warm areas and have the ability to multiply quickly. The fleas in central Asia (China) found a constant food source in the rat.



http://www.endocytosis.org/Black_Plague/Flea.gif



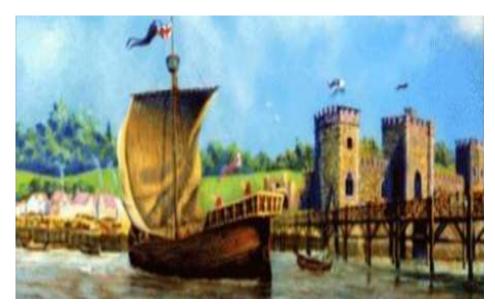
http://www.usu.edu/markdamen/1320hist&Civ/slides/06plague/ratssmall.JPG

Plague Spreads West

Infected fleas will find the perfect food source in the rat. Like the flea, rats reproduced easily and were found in great number. Rats also have the ability to get in many places, eat pretty much anything, and can easily **stow away** or hide in cargo. As the fleas bit the rats, they moved wherever the rat moved. Some of these fleas and rats found their way into the trade goods, bags, blankets, and wagons merchants used as they traveled west along the **Silk Road**. Both merchants and rats died of the plague, as the infected fleas continued to spread the Black Death. Eventually the plague will reach the port cities along the Black Sea.

Since ancient times, ship captains from Italy sailed throughout the Mediterranean world trading goods. One of their most important trade stops were the port cities along the Black Sea. When the merchant ships came into dock, they unloaded their cargo and the crews went ashore. Unknowingly to the sailors, they exposed themselves to the fleas and plague within the city.

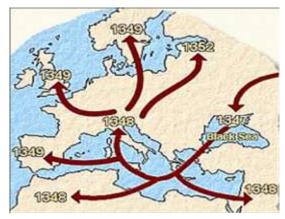
Some rats also were loaded back onto the boats in the cargo and as they sailed home many became ill with the plague and died.



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Plague Enters Italian Ports

The Black Death (Bubonic Plague) will first enter Europe through the Italian port cities. As the traders returned from the Black Sea, cargo (including rats) was unloaded off the boats along with the ill sailors. The rats found the dirty cities of Middle Ages Europe the perfect environment to thrive and began to multiply. The more rats, the more fleas there were to bite and infect people. People were stricken down with the plague at an alarming rate, with thousands dying every day. The plague spread quickly from the ports, into the cities, and eventually into the countryside. People tried to escape, but could not outrun death.



http://www.p12.nysed.gov/ciai/socst/ghgonline/turnpoint/images/content/tp30/mess.gif



https://s3.amazonaws.com/lowres.cartoonstock.com/animals-rat-plague-disease-diseases-spreading-shl090901 low.jpg

Question: What ways do you think a plague could be spread today?

Question: Can you think of any plagues or illnesses that have been in the news recently? Discuss in detail.

Symptoms and Facts

The Black Death caused a red swelling of the **lymph nodes** (armpits, neck, thighs), that would eventually turn black and ooze puss and blood. These black boils are called **buboes** and this is where we get the name Bubonic Plague. The victim would have a high fever and intense aching of their muscles and joints. The fever would often make them hallucinate, making them feel disoriented. They would also spit up blackish colored blood from their lungs. The smell of the

plague was awful; the stench of death was literally in the air. It is generally accepted that there were two strains of the Black Death. The first strain acted quickly and could kill you within a 24 hour cycle. There are many accounts of people being healthy in the morning and dead by nightfall. The second strain of the plague took much longer and caused prolonged suffering. This strain did not always kill its victim and some people recovered.



http://www.mrdowling.com/703-plague.html

When the Black Death first struck in 1347-1351 A.D., it **killed 1/3 of the population of Europe (20 million)**. People died so quickly and in such great numbers that many did not receive proper Christian burials. The bodies of the dead were carted off and thrown into giant mass graves outside of the city.



http://study.com/cimages/multimages/16/bla ck-death-body-disposal.jpg



http://www.channel4.com/media/images/Channel4/c4-news/2011/AUG/30/30 blackdeath g w.jpg

Question: Do you agree or disagree with how they buried the dead? Explain

why.



This mass grave of Black Death victims was accidentally discovered in Istanbul, Turkey (Constantinople) during a recent construction project with in the city.

http://www.ego-vero.net/main/wp-content/uploads/2014/04/plague-grave2-709728.jpg

Knowledge is Important

During the Middle Ages there was very little emphasis on education throughout Western Europe. People were just trying to make it on a daily basis and most of the knowledge from Greece and Rome had been lost. Very few people even had the ability to read and write, outside of the Roman Catholic Church. There was also a general lack of scientific and medical knowledge. Besides the quick spreading nature of the plague, this lack of knowledge helped the **epidemic** (widespread infectious disease) to spread. If you do not know what is causing people to get sick, it is kind of hard to cure them of their illness. The plague doctors used methods to treat their patients that we would view as primitive, superstitious, and just plain silly.

Question: Do you think the plague would be as deadly if it happened now? Why or why not? Explain in detail.



The plague doctor's long beak held flowers or herbs to shield the doctor's body from the smell of rot and decay caused by the victims of the Black Death. His outfit was also designed to help keep the doctor from getting infected. The doctor's presence and outfit meant that death was nearby and is still regarded by much of the world as a symbol of true horror.

A common way to treat the plague was called bloodletting. The idea was to drain the infected blood out and have the patient's body replenish news healthy blood. They used a hook to bleed them and a bowl to collect the infected blood. The infected blood looked blackish green, smelled awful, and came out of the body thick like syrup. This bloodletting technique often killed or weakened the patient to the point of death.

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http://4.bp.blogspot.com/ L1y4XexY16s/Sc5afsr9d3I/AAAAAAA ADaA/lkm-i4iG68c/s400/a392 Bloodletting-7.jpg

Effects of the Black Death

The Black Death made a giant impact on human history by decimating Europe's population. So many people had died that the **feudal system and manorialism came to an end**. There were no longer enough peasants (serfs) to work the land. There was still a lot of work to be done on the manors, but only half of the labor force required to accomplish these tasks. The peasants (serfs) who did survive the plague figured out their services were now much more valuable and began to ask for pay. This was where the idea of receiving a paycheck started. They also were free to leave the manors and move to the cities. They could now afford to be on their own and did not need to be so dependent on manor life. Many of Europe's cities began to grow larger during this time and became the centers for society.

Question: How did feudalism/manorialism come to an end?

Question: How did the life of a peasant (serf) improve? Give your evidence

Did you know?

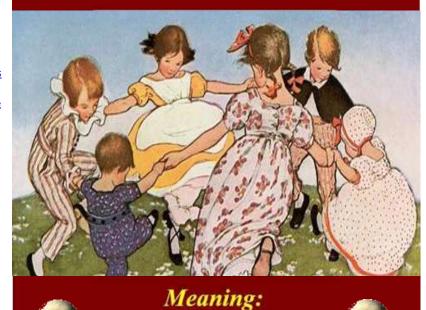
Some of the nursery rhymes you sang in elementary school have historical meanings behind them. For instance, the nursery rhyme "London Bridge is Falling Down" is actually about a Viking attack on the city of London, England. Another nursery rhyme you sang is "Ring Around the Rosie." This nursery rhyme tells the story of the Black Death. Look at the lyrics below and compare the lyrics to what you just learned.

http://www.mmd tkw.org/MedRom 1017bRosyRhyme 2.jpg

Ring around the rosy A pocketful of posies "Ashes, Ashes" We all fall down.

The English plague nursery rhyme

http://www.mam alisa.com/images /mother_goose/ri ngaroundtherosie _willcox.gif



http://www.mmd tkw.org/MedRom 1017bRosyRhyme 2.jpg Red rash around the mouth
Flowers to mask plague odors
Violent sneezing associated with plague
Death of all the infected