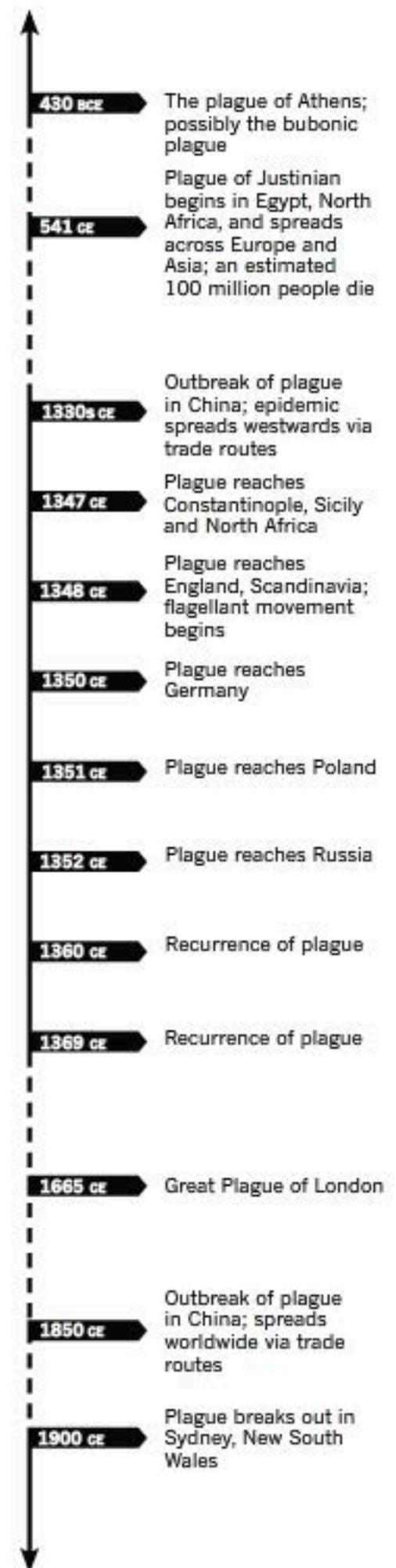


Investigating the Black Death

In the mid-fourteenth century CE a terrible disease, the Black Death, swept across Asia, Europe and regions of Africa. Historians conservatively estimate the death toll to have been around 75 million people. In Europe, it is believed that about 60 per cent of the population perished from the disease. In some regions across Asia and Africa, that figure was much higher, while other regions were barely affected.

It was not the first or last time this dreaded plague spread across the populated world, but the fourteenth-century outbreak, referred to as the Black Death, will always be recognised as one of the deadliest outbreaks.

Source 11.0.1 Dance of Death, a detail from a fifteenth-century rood screen at the Church of St Mary, Sparham, Norfolk, United Kingdom



Source 11.0.2 Timeline of major outbreaks of the plague

Living conditions in the fourteenth century

Extent of human settlements

In the fourteenth century, European knowledge of the world was limited. Overland travel to distant places took many months and was often dangerous. The dangers of sea travel were often great and most voyages took place along the coast and known trade routes. Maps of that time represented the known world as consisting of Europe, northern Africa and parts of Asia. Knowledge of northern Africa dated back to the ancient world. The travels of Italian Marco Polo (1254–1324) into China, in the late thirteenth century, expanded European knowledge of the known world into far eastern Asia.

Everyday life

Life in the fourteenth century varied a lot and the way of life of most people depended on the social class they were born into. Most people were members of one of three groups: the nobility, the Church or the peasantry. The largest but least

important social class was the peasantry. People in this group were referred to as villeins or yeomen. Villeins made up about 85 to 90 per cent of the population and had to work for a lord who owned the land and controlled their lives. Indeed, land valuation for tax and trade included the number of **peasants** the manor had. Yeomen were also farmers, but were free and owned their own land.

Villages and towns

The majority of the population lived in the countryside in villages of about 110 to 300 people. Their houses were small and, during winter, animals were often brought inside the house to keep them warm. A smaller percentage of the population lived in towns and cities. Generally these towns were much smaller than today. London had a population of approximately 80 000 compared with over eight million today.



Source 11.1.1 A peasant gathering acorns. An illustration on vellum, thirteenth to fourteenth century, Biblioteca Monasterio del Escorial, Madrid, Spain



Source 11.1.2 The late fourteenth-century world map of Ranulf Higden. It depicts the world known to Europeans. Jerusalem is in the centre. Europe is on the lower left, north Africa on the lower right and the Mediterranean Sea separates these continents. Asia covers the upper half of the map.

Living conditions

Castles, towns and villages were very dirty. Rubbish, filthy water and the contents of chamber pots were thrown onto the streets. Animals were often allowed to roam freely about the streets. Most of the buildings were wooden and placed closely together, making them dangerous in case of fire. Drinking water was drawn from the same river where local industries, such as brewers and tanners, and the townspeople dumped their waste.

Population

Life expectancy

Most people in the fourteenth century had much shorter lives than today. Their life span did depend, to a certain extent, on the social class into which they were born, but generally the average person lived for about 30 to 35 years. Boys could marry at fourteen and serve as soldiers at fifteen. Girls could marry at twelve, although most married at



Source 11.1.3 Wood harvesting at Buonconsiglio Castle. A detail from the Month of December, a panel from *Cycle of the Months*, a fourteenth- to fifteenth-century fresco by Master Venceslao, Buonconsiglio Castle, Trento, Italy

about sixteen. By their mid twenties, most women had given birth to five or six children, but two to three of these would likely have died. Many women died during childbirth—it is estimated that up to 20 per cent of women may have died this way.

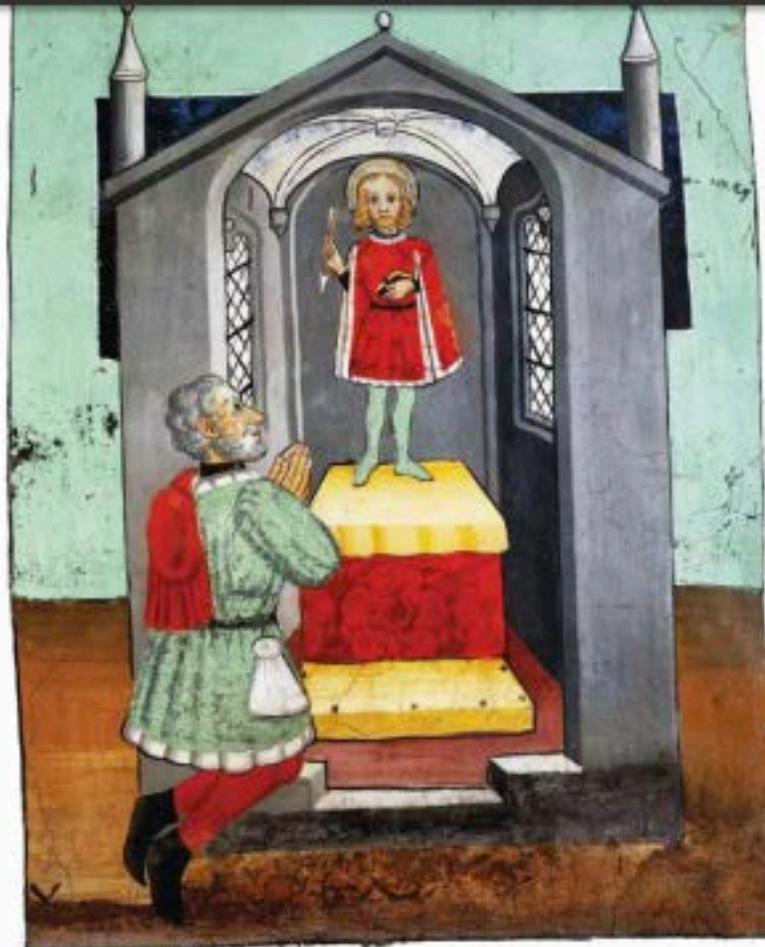
Population growth

During the thirteenth century, changes had begun to occur within the European population. Some people had begun to move from established farming areas and cleared other land in more remote areas. This increase in the amount of farmed land led to greater food production. In turn this led to an increase in the population during the thirteenth century.

However, by about 1300, the situation began to deteriorate. Poor weather had caused crop failures and this had led to famine. In 1309, a major famine struck much of Europe, followed by another in 1316. As well as these problems, many areas of northern France were already in very poor condition due to the Hundred Years War with England. Vast areas of the countryside were devastated and agricultural production decreased. The European population was already in a weakened state by the time the **plague** broke out in 1347. It is not known how great an impact this circumstance had on the rapid spread of the plague.

The importance of religion

People in fourteenth-century Europe were deeply religious. Many went to church every day and many went on several pilgrimages or journeys to holy places each year. Peoples' lives revolved around religious days and festivals throughout the year. The Catholic Church was very powerful and had a huge influence on how countries and towns were ruled. The leader of the Roman Catholic Church was the Pope. His papal seat was in Rome. He was seen as God's representative and therefore had great influence over kings and commoners alike. People believed that God made all things happen. God was thought to be responsible for inflicting diseases on the people if they disobeyed Church teachings. If people recovered, it was due to divine grace and if doctors were able to cure disease, it was through God's will.



Source 11.14 Praying to St Sebastian for protection from the plague. A fifteenth-century fresco, Chapel of St Sebastian, Villard-de-Lans, Rhône-Alpes, France

ACTIVITIES

Remembering and understanding

- 1 Outline why European knowledge of the world in the fourteenth century was limited.
 - a What were the three main groups in medieval society?
 - b What was the role of the villein in society?
- 2 What kinds of work do you see the peasants doing in Sources 11.1.1 and 11.1.3?
- 3 Outline the reasons for population growth and decline in the thirteenth and early fourteenth centuries.

Applying and analysing

- 4 Copy or draw Source 11.1.4 onto the centre of a large piece of paper or Word document and use it as the basis to create a concept map about religion and the power of God in medieval times.

Evaluating and creating

- 5 Discuss with a partner reasons why people generally had shorter life spans in the fourteenth century than today. Formulate at least two theories and share these with the class. Use Sources 11.1.1 and 11.1.3 to help you.

Medicine in the fourteenth century

Medical knowledge and training

In the fourteenth century, medical knowledge was very limited. There was little formal training available to doctors and few even attended university. Doctors did not understand how diseases were spread, nor did they know about germs or **bacteria**. Even those who trained as doctors never studied corpses to further their understanding of the human body, as the Church forbade this. The majority of people were unable to afford treatment from doctors. They relied on medical attention from monks and nuns or from people in their communities who practised herbal and popular treatments.

The four humours

Based on the theories of the ancient Greek 'Father of Medicine,' Hippocrates, medieval doctors believed that there were four basic elements in the body, called the **humours**. It was thought that these humours had to remain 'balanced' for good health.



Source 11.2.2 A woodcut illustration showing a medieval doctor examining urine

If they were out of balance, a person became ill. The four humours were closely associated with not only a person's health but also their personality and medieval beliefs in astrology and astronomy (see Source 11.2.1).

Doctors would examine a patient's urine or faeces to try and decide if the humours were out of balance. A common treatment used to restore balance to the humours involved bloodletting. This might be done by placing leeches over the body or by cutting a vein.

Humour	Choler	Melancholy	Sanguine	Phlegmatic
Body substance	Yellow bile	Black bile	Blood	Phlegm
Produced by	Spleen	Gall bladder	Liver	Lungs
Element	Fire	Earth	Air	Water
Qualities	Hot and dry	Cold and dry	Hot and moist	Cold and moist
Physical qualities	Red-haired, thin	Sallow, thin	Red-cheeked, plump	Plump
Personality	Passionate, short-tempered, ambitious	Sullen, melancholic, bad-tempered	Amorous, generous, cheerful, irresponsible	Cold, dull, calm, lazy, cowardly
Animal	Lion	Pig	Ape	Sheep
Zodiac signs	Aries, Leo, Sagittarius	Taurus, Virgo, Capricorn	Gemini, Libra, Aquarius	Cancer, Scorpio, Pisces
Planetary influence	Mars (the lesser evil)	Saturn (the greater evil)	Jupiter (the greater fortune)	Venus (the lesser fortune)

Source 11.2.1 The theory of the four humours and their effect on people. Partly adapted from R.W. Ackerman, *Backgrounds to Medieval Literature*, Random House, New York, 1966

Astronomy

Another popular 'medical' explanation was that the movement of three planets, Saturn, Jupiter and Mars, had caused a disruption of the air, which was sometimes referred to as a **miasma**. This was bad air or vapour that was blown by the wind and could enter human bodies through the skin or by breathing it in. It was commonly believed that if people breathed in this miasma, their humours would go out of balance, making them ill.

.....
For we wish it to be understood that air, which is pure and clear by nature, does not putrefy or become corrupt unless it is mixed up with something else, that is, with evil vapours.
.....

Source 11.2.3 Extract from the 'Treatise of the Paris Consilium', 1348, in J. Aberth, *The Black Death: A Brief History with Documents*, Bedford-St. Martin's, 2005, p. 43

Beliefs about the causes of the Black Death

The 'Treatise of the Paris Consilium' was a paper about the Black Death written in 1348 by forty-nine medical experts from the University of Paris. Although it stated the cause of the Black Death could not be known for certain, it identified poisonous gases released from the earth's core during earthquakes as one explanation. Indeed, Europe had experienced a series of earthquakes from 1345 to 1347. Another explanation was the alignment of Saturn, Jupiter and Mars, which created the hot and wet conditions that led to rotting of plant matter and then to plague.

Many prominent people had different ideas about the cause of the plague, as shown in the following three sources.

.....
... when mice and animals living under the earth fled to the surface and were disturbed, as if they were drunk ...
.....

Source 11.2.4 Avicenna (980–1037 CE), a Muslim physician, on the origins of an earlier outbreak of plague, in R.S. Gottfried, *The Black Death: Natural and Human Disaster in Medieval Europe*, Free Press, 1985, p. 110

.....
... filth, 'fleys' and vermin brought the plague.
.....

Source 11.2.5 Swedish bishop Bengt Knutsson, 1461, in R.S. Gottfried, *The Black Death: Natural and Human Disaster in Medieval Europe*, Free Press, 1985, p. 110

.....
The second [outbreak of the plague] was caused by a very strong earthquake which many can recall, and that pestilence was naturally located in regions of Italy and in parts overseas, in the other triangle opposite the house of Europe [i.e. in an indefinite region to the east].
.....

Source 11.2.6 Extract from a letter by Alfonso de Cordoba c. 1348 on how the plague spread, in J. Aberth, *The Black Death: A Brief History with Documents*, Bedford-St. Martin's, 2005, p. 46

ACTIVITIES

Remembering and understanding

- 1 Outline why medical knowledge was limited in the fourteenth century.
 - a What were the four humours?
 - b What relationship did they have to a person's:
 - i physical appearance?
 - ii personality?
- 2 What was a miasma and what was it thought to do?

Applying and analysing

- 3 Examine Source 11.2.1 and use it as a basis to write a fourteenth-century doctor's report on your health. You may either write a written report or present your report as an annotated drawing of yourself.

Evaluating and creating

- 4 How effective do you think doctors would have been in curing diseases during the Middle Ages? Explain the reasons for your answer.

Origins and spread of the Black Death

Expanding trade routes

Trade between the East and the West increased in the twelfth and thirteenth centuries. There was a network of interconnecting routes that traders used. Some were overland routes, others were sea routes. Sometimes goods were transported first by land and then by sea from Asia to Europe. Merchants trading in Asia were mainly Italians. From European seaports, goods were distributed throughout Europe and northern Africa. Silk, spices and other goods were not the only items to move along the Silk Road between Asia and Europe. Rats hid among the trade goods or climbed mooring ropes to get on board merchant ships. Merchants unintentionally transported rats and the fleas they carried from Asia into Europe and Africa. These fleas were the carriers of the Black Death.

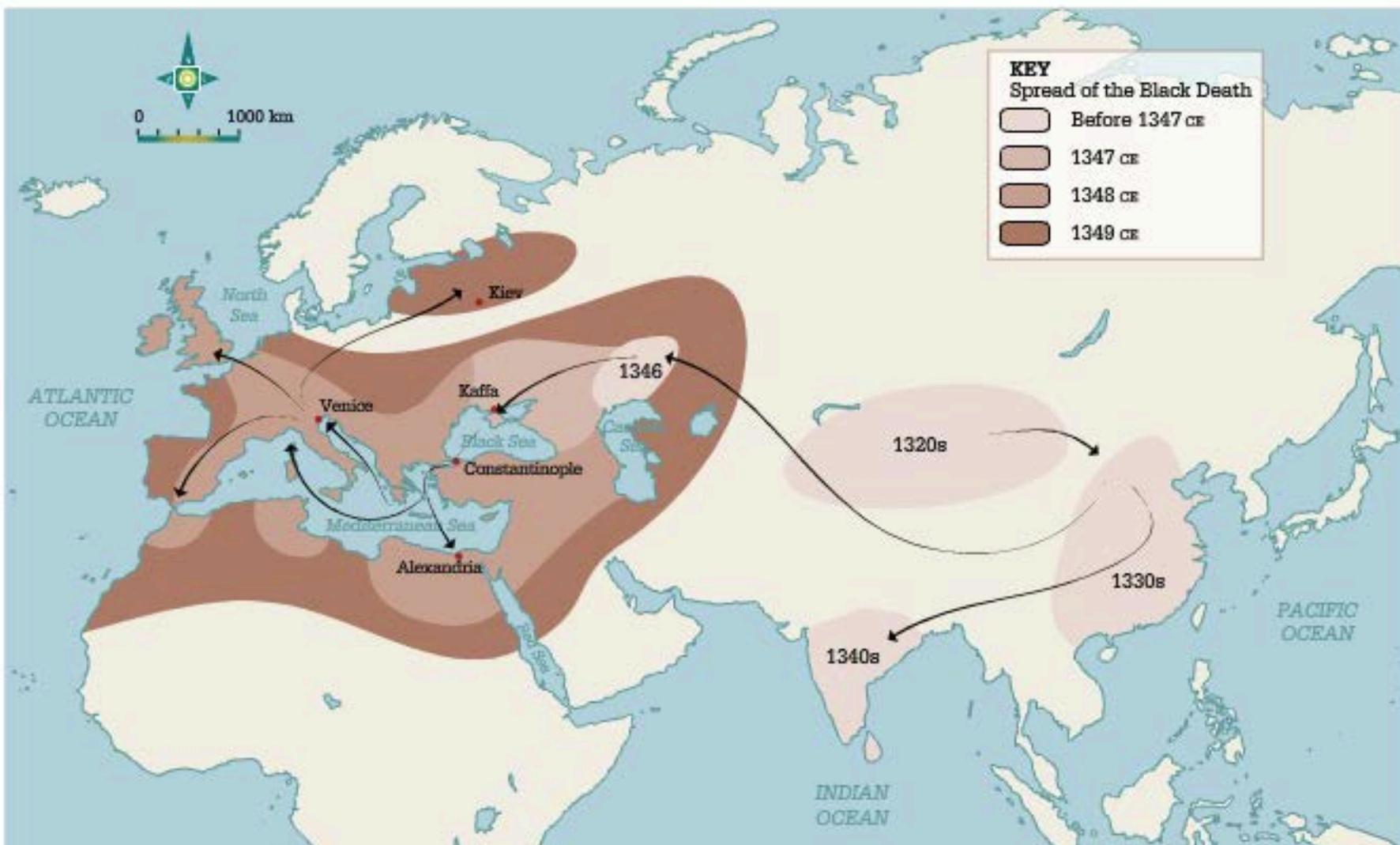
Origins of the Black Death

The Black Death is believed to have originated in the Gobi Desert of central Asia in the 1320s. From there it spread westwards to China where it emerged in the 1330s. The records of this are poor, but some sources do reveal a decline in the Chinese population. From there, the plague slowly moved westwards.

Outbreak and spread of the Black Death

Theories as to how it spread

Historians have different explanations as to how and why the Black Death reached Europe and Africa. The reasons for the spread of the Black Death are unclear and we will never really know the exact route it took.



Source 11.3.1 Origins of the Black Death in Asia and its spread to Africa and Europe

Some historians believe it was spread throughout the east by Mongol nomadic horsemen, who covered a vast area from China to India and the Middle East. Other historians believe it was environmental conditions that led to infected rats moving from their usual areas towards Western Europe. However, all historians agree that trade between Asia and Europe had a major impact on the spread of the Black Death in the fourteenth century.

Spread by trade

Historical records show that a group of Italian traders arrived in Sicily from China in October 1347. Among the goods they carried were rats with fleas carrying *Yersinia pestis* bacteria. This was one of the first outbreaks in Europe. It was recorded in Sicily that when a merchant fleet arrived in the Sicilian port of Messina in October 1347, its crew were nearly all dying or already dead and were described as having 'sickness clinging to their very bones.' Although the ship was not allowed to stay, infected rats managed to get to land when the ropes were first tied to the docks. The disease spread quickly. By early November 1347, nearly all of Sicily was stricken with the disease.

.....
.. in the month of October, in the year of our Lord, 1347 ... twelve Genoese ships, flying from the divine vengeance ... put into the port of Messina, bringing with them such a sickness clinging to their very bones that, did anyone speak to them, he was directly struck with a mortal sickness from which there was no escape ...

Source 11.3.2 A description of the Black Death arriving in Sicily, in F A Gasquet, *The great pestilence*, S Marshall, Hamilton, Kent & co., limited, 1893, pp. 12–13

Other evidence points to Kaffa as the place of one of the early outbreaks of the Black Death. Kaffa, located on the Black Sea, was the last trading post on the Silk Road. Mongols attacked Kaffa in 1346. Italian merchants were held under siege in the town. When the Black Death broke out among the Mongols, they hurled diseased corpses over the city walls into the town. The Italians fled to Constantinople, arriving in May 1347. Plague soon broke out.

.....
The epidemic which then (1347) raged in northern Scythia, traversed almost the entire sea-coasts, whence it was carried over the world. For it invaded not only Pontus [in modern Turkey], Thrace [south-east Europe], and Macedonia, but Greece, Italy, the Islands, Egypt, Lybia, Judea, Syria, and almost the entire universe ... Neither regularity of life nor bodily strength was any preservation against it. The strong and the weak were equally struck down.

Source 11.3.3 An account of the spread of the Black Death in other regions, in F A Gasquet, *The great pestilence*, S Marshall, Hamilton, Kent & co., limited, 1893, p. 10



Source 11.3.4 *The Merchant*, a woodcut after Hans Holbein the Younger, depicting how the plague was spread by trade ships

The Black Death spreads further into Europe and Africa

Italy

By December 1347, the Black Death had reached southern Italy. At about the same time, reports began to arrive from the major trading ports of Pisa and Genoa of outbreaks of the disease with about 40 per cent of the population dying. From there

it moved to the more heavily urbanised areas of central Italy. It also had devastating effects on the commercial cities of Florence, Sienna and Venice. Although ships were quarantined (kept separate for a period of forty days), this measure was too late to stop the spread of the disease into Venice. It is estimated that 60 per cent of the population of Venice died.

France

By January 1348, the Black Death was reported in Marseilles, a major port in the south of France, where the mortality rate was also thought to be about 60 per cent. It quickly spread throughout France, including Avignon where the Pope lived and Paris. Many areas of northern France were already in very poor condition due to the Hundred Years War with England and the plague spread very rapidly in these areas. It then spread to Belgium, the Netherlands, Scandinavia and even Iceland and Greenland. Historians believe that a combination of plague and poor climatic conditions wiped out the whole population of Greenland.

.....
... more than one-half of the people at Avignon are already dead. Within the walls of the city there are now more than 7000 houses shut up; in these no one is living, and all who have inhabited them are departed; the suburbs hardly contain any people at all ... at Marseilles all the gates of the city, with the exception of two small ones, are now closed, for there four-fifths of the inhabitants are dead. The like account I can give of all the cities and towns of Provence. Already the sickness has crossed the Rhone, and ravaged many cities and villages as far as Toulouse ...

Source 11.3.5 A description of the Black Death in France by an unknown cleric, in F A Gasquet, *The great pestilence*, S Marshall, Hamilton, Kent & co., limited, 1893, p. 40

England

England was also severely affected. Historians believe that the plague was brought to England aboard French and Italian ships in September 1348. Like Italy, it was reported that in London, England's largest town and major trading centre,

there were outbreaks by late 1348. Despite the fact that most people lived in the countryside, regular travel between town and country helped spread the disease throughout most of England.

.....
Here in Bristol in 1348, the plague raged to such a degree that the living were scarce able to bury the dead ... At last it reached Gloucester, Oxford, and London; scarce the tenth person was left alive, male or female ... There was no city, nor town, nor hamlet ... in which this plague did not carry off the whole, or the greater portion, of the inhabitants.

Source 11.3.6 Contemporary account of the spread of the plague in England, in F A Gasquet, *The great pestilence*, S Marshall, Hamilton, Kent & co., limited, 1893, pp. 86–91

North Africa

Seaports on Africa's Mediterranean coast were also affected. Alexandria, in Egypt, was one of the first to become infected in 1347. By 1348, the Black Death had spread to other port cities and it then moved southwards so that the whole of northern Africa experienced outbreaks.

Reasons for the Black Death's rapid spread

For the Black Death to break out in such a major fashion, a series of events and circumstances had to coincide.

- Fleas are only active at temperatures of 15 to 20 degrees Celsius, with 90 to 95 per cent humidity, which is why most outbreaks only occurred in late summer and early autumn.
- The population of Europe was not in a healthy state, as poor harvests and bad weather had led to crop failures in many parts of Europe at the time.
- A booming European population had led to overcrowding in some areas and greater numbers of people living in towns and cities.
- The speed of land transport along main roads was about 2 kilometres per day; however, ships could travel 40 kilometres in a day. Sea travel moved rats and fleas quickly over vast distances.



Source 11.3.7 The Black Death reaches Tournai in Belgium in 1349. Illustration on vellum by Gilles Le Muisit (1272–1352), Royal Belgian Library, Brussels

Did you know?

Black Death researchers have extracted DNA from the remains of fourteenth-century plague victims to learn more about the plague. These experts have found that the fourteenth-century plague strain was no more virulent than the plague virus that is still around today. The quick spread of the fourteenth-century plague has led them to hypothesise that the plague was not in fact bubonic (spread by fleas on rats), but was pneumonic and spread from human to human by coughs and sneezes.

ACTIVITIES

Remembering and understanding

- 1 Outline how trade helped facilitate the spread of the Black Death.
- 2 What do Sources 11.3.1 to 11.3.4 tell us about how the plague arrived in Europe?

Analysing and applying

- 3
 - a What do the sources in this unit tell us about the effect of the plague on the towns and cities it reached?
 - b Why do you think the Black Death would have affected urban areas more than rural areas?

- 4 Once the Black Death arrived in a certain location, why would it have been difficult to limit its spread to other places?
- 5 Examine Source 11.3.7.
 - a Describe what you see.
 - b What does this image tell us about the impact of the plague on a town?

Evaluating and creating

- 6 Why do you think historians cannot provide a clear explanation as to how and why the Black Death reached Europe and Africa?

The causes of the Black Death

Bacteria, fleas and rats

The Black Death was caused by a type of bacteria called *Yersinia pestis*. These bacteria live in the digestive tract of fleas, particularly the fleas that inhabit the fur of rats. These bacteria can multiply rapidly in the flea's stomach and when the flea feeds or bites, these bacteria are regurgitated into its victims. The fleas live on **rodents**, especially rats, and in Europe the *Rattus rattus* or black rat was the most important carrier.

Black rats tend to live close to humans and where food waste is found. They are good climbers and very adept at climbing into the rafters of houses. The thatched roofs of peasants' homes were ideal living quarters for them. As well, they could easily run down anchoring ropes from ships when they came into dock at seaports. However, it was not only rats that carried the fleas. Other rodents such as marmots, squirrels and prairie dogs could also carry the infected fleas. Although it was not their preferred place to live, if desperate the fleas could also live on most other animals, including humans.

Black Death types and symptoms

There are three forms of the Black Death. The most common and least deadly is the bubonic plague, which is transmitted by fleas. Bubonic plague is not **contagious** between humans. It had a 60 per cent death rate and killed victims in five to seven days. If the infection reached the lungs, another form of the Black Death came about, known as the **pneumonic** plague. This form usually occurred if the disease was caught in winter. It had a 90 to 100 per cent death rate and killed victims in about a week. The most lethal form, with a 100 per cent death rate, was septicaemic plague.



Source 11.4.1 A woodcut illustration of the black rat, *Rattus rattus*, from Conrad Gessner's 1551 *Historiae Animalium*. Gessner was a sixteenth-century naturalist who died from the plague.

Bubonic plague

When a flea bit a human for food, it deposited the bacteria into the human's bloodstream. The bacteria could multiply very rapidly and within three to six days the first symptoms began to appear. The first symptom was generally a **pustule** at the place where the bite happened. This was quickly followed by swellings in the armpits, groin or neck, depending on where the flea had bitten. If it bit higher on the body, swelling would usually start near the armpits, if the bite was lower, swelling would often begin in the groin.

These swellings were known as **buboes**, and this is where the bubonic plague gets its name. Buboes were swollen lymph nodes around the armpits or groin, usually full of pus and sometimes the size of an apple. After this, the sufferer began to bleed under the skin causing large purplish blotches to appear. Sometimes this bleeding affected the nervous system, leading to uncontrollable movements and psychological disorders.

.....
... it first betrayed itself by the emergence of certain tumours in the groin or the armpits, some of which grew as large as a common apple, others as an egg, some more, some less, which the common folk called gavoccioli. From the two said parts of the body this deadly gavocciolo soon began to ... spread itself in all directions ...; after which the form of the malady began to change, black spots ... making their appearance in many cases on the arm or the thigh or elsewhere ... [T]he gavocciolo ... was an infallible token of approaching death.
.....

Source 11.4.2 A description of the plague in *The Decameron* by Giovanni Boccaccio, a collection of 100 stories, begun c. 1350, completed 1351–53

Pneumonic plague

This type of plague had an **incubation** period of two to three days and a much higher mortality rate. After the incubation period, the victim experienced a rapid drop in body temperature followed by a severe cough. Unfortunately, the deadly bacteria were carried in the tiny droplets produced by a coughing victim, which were then breathed in by anyone nearby. This made the pneumonic plague very contagious.

Septicaemic plague

Septicaemic plague occurred when the *Yersinia pestis* bacteria entered the bloodstream and attacked the immune system. It caused high fever, exhaustion and stomach pain. It led to multiple organ failure and death was inevitable.



Source 11.4.3 Death strangling a victim of the Black Death, from the codex called the *Clementinum Collection of Tracts* by Thomas of Stitny, 1376, National Museum, Prague, Czech Republic

ACTIVITIES

Remembering and understanding

- 1 List the three types of plague.
- 2 Examine Source 11.4.2. What type of plague does Boccaccio describe?

Analysing and applying

- 3 Use the information and sources in this unit to create an AVD that explains:
 - a how the Black Death spread to humans
 - b the symptoms and details of each form of the Black Death.
- 4 Examine Source 11.4.3. Why do you think the plague victim is depicted in this way?

Evaluating and creating

- 5 Using the information in this unit, prepare a pamphlet advising on actions to take to avoid the spread of the Black Death.

Treatments for, and responses to, the Black Death

Attempts to prevent the Black Death

It is evident from the sources available that medieval doctors had no idea about the scientific causes of the Black Death or how to treat it. Without proper knowledge about its actual causes, it was thought that the best hope was to prevent it from occurring. The belief that the plague was carried on foul air or miasma meant the people of the time went to great lengths to keep this foul air at bay. It was considered unhealthy to be near the sea or marshes as it was believed the miasma came from there. A lot of time and effort were put into keeping these poisonous airs away. People would:

- burn dry and richly scented woods to sweeten the air
- place sweet-smelling herbs like rosemary and flowers around the house
- sprinkle rosewater over floors
- avoid physical activity so as not to breathe in more air
- avoid hot baths as the pores of the skin open and let in poisoned air.

... it is recommended that fires be lit in homes and in places where people are living, and that men rest quietly. Also, fires of any kind of fragrant plant be set up, and the house and the city be cleansed of foul matter [i.e. excrement], and to counteract the foulness, fruits and spices ... should be at one's disposal.

Source 11.5.1 One suggested method of prevention, in J. Aberth, *The Black Death: A Brief History with Documents*, Bedford-St. Martin's, 2005, p. 49

In such times one must avoid violent exercise because such exercise causes much air which is foul and poisoned to be drawn to the heart. The heart is corrupted and also the blood and its spirits, by air ...

Source 11.5.2 Another suggested method of prevention, in J. Aberth, *The Black Death: A Brief History with Documents*, Bedford-St. Martin's, 2005, p. 52

Other preventative measures involved what was eaten. A fig with breakfast was recommended, and pills of aloe, myrrh and saffron were popular. Another favourite suggestion was 10-year-old treacle blended with chopped-up snakes and wine! Other ideas included not eating fish or meat unless it was roasted. It was also suggested that a person should avoid regular bathing.

And also I say that in such times habitual bathing is also very dangerous, because the bath opens the pores of the body and through these pores corrupt air enters and has a powerful influence on our body and our humours.

Source 11.5.3 The dangers of bathing, in J. Aberth, *The Black Death: A Brief History with Documents*, Bedford-St. Martin's, 2005, p. 54

Treatments for the Black Death

Bleeding

Victims of the plague were treated with a range of **remedies**, none of which were particularly effective. The main treatment was bloodletting to rid the body of evil vapours that had entered the body and were affecting the balance of the body's humours. This treatment only weakened the patient further.

.....
The desired evacuation having taken place, one can shortly after bleed the median vein ... in order to withdraw blood, 3 or 4 ounces, more or less according to the condition of the person ... And if one asks me in which quarter of the moon it is best to let blood, I say in the third quarter. And also I say it is better to do it in the middle of this quarter, provided that the moon in such times is not seen in a sign unfavourable for bloodletting such as Gemini, Leo, Virgo, Capricorn and some others.
.....

Source 11.5.4 A contemporary description of bleeding a patient, in J. Aberth, *The Black Death: A Brief History with Documents*, Bedford-St. Martin's, 2005, p. 53

.....
Bleeding. Here one shouldn't be too fearful or hesitant. It is the best way to maintain one's health during this calamity! ... But it has to be done, even in the middle of the month when the moon is full or in the second or third hour of the day. If one's power and age permit, it should be done two or three times [a day], if the person was with a diseased person or took care of one. Disregard the season, even though normally it has to be observed, but not in this one. The disease changes all seasons into one season, all diseases into one.
.....

Source 11.5.5 Another contemporary description of bleeding a patient, in J. Aberth, *The Black Death: A Brief History with Documents*, Bedford-St. Martin's, 2005, p. 53

Other remedies

Other remedies included giving the patient soothing potions to drink. One of the most popular was a blend of apple syrup, rosewater, lemon and peppermint. Buboes were often cut open to let the poison escape; this usually only succeeded in spreading the disease further.



Source 11.5.6 Doctors using leeches to heal a patient, from *The Decameron* by Giovanni Boccaccio (1313–75), vellum, National Library, Paris, France

Responses to the Black Death

The flagellants

Many people considered the Black Death to be a punishment from God. People believed that if they showed regret for their sins, God's anger could be placated. One group thought that flagellation would achieve this. Flagellation was the whipping or scourging of oneself with a stick with several pieces of rope or strips of leather attached to the end. Sometimes these leather thongs also had metal studs attached to the ends. **Flagellants** would rhythmically beat their backs or breasts with these scourges to show God that they were atoning for their sins. They hoped that God would take away the plague.

Some flagellants went on pilgrimages from town to town. Pilgrimages could involve 300 to 400 flagellants. They would perform their scourging ceremony in the town square, beating themselves into a frenzy. Townspeople watched and encouraged them to even greater excesses. It is quite possible that the flagellants had the effect of spreading the disease as walking from town to town often helped to spread the plague.

.....
The penitents would come to town ... now three hundred [members]. For their habit they wore a tunic over their ordinary clothes. On the front of this tunic they wore a red cross over the breast and another behind on the back, and the tunic was cut away in one place and there hung their whips, which we commonly call scorgies [scourges], each having three knots. And in each knot there were four piercing points or needles of iron ...

Source 11.5.7 A contemporary description of flagellants, in J. Aberth, *The Black Death: A Brief History with Documents*, Bedford-St. Martin's, 2005, p. 135

Scapegoats

Many people looked for a scapegoat, someone to blame for the onset of the Black Death. As a non-Christian group in a Christian Europe the Jews were an easy target. Jews began to be blamed for the disease, with people claiming that the Jews had poisoned the water supplies of towns. As the Black Death spread through Europe in 1348, massacres of Jews began. In April 1348, in France, forty Jews were killed in Toulon. Nine hundred Jews in Strasbourg were burnt alive in February 1349, even before the plague arrived. In Erfurt, Germany, in March 1349, an estimated 1000 to 3000 Jews were massacred. Some Jews burnt their homes and themselves before the lynching groups arrived. As the plague diminished across Europe after 1350, so too did the attacks on Jewish communities.



Source 11.5.8 Flagellants in Doornik (Tournai), Belgium, in 1349. A copy of a miniature from the *Chronicle of Aegidius Li Muisus*, private collection



Source 11.5.9 The burning of Jews in the Nuremberg Massacre, Germany, in 1349

.....

... the Jews were accused of having created ... this pestilence by throwing poison down springs and wells. And they were burnt from the Mediterranean Sea to Germany, except for Avignon, where Pope Clement VI protected them ... some Jews were tortured in Bern ... and poison was discovered in Zofingen. And the Jews were destroyed in many places ... And the alderman and even some nobles in Basel strove to protect the Jews from a long-term banishment. ... the people ... mobbed the councillors' palace. The councillors were terrified and the burghermeister asked them, 'What do you want?' They responded, 'We won't go away until you change your mind about banishing the Jews!'

.....

Source 11.5.10 A contemporary account of the treatment of Jews during the Black Death, in J. Aberth, *The Black Death: A Brief History with Documents*, Bedford-St. Martin's, 2005, p. 151

Did you know?

One recommended cure for the Black Death was powdered emerald. It was believed that this remedy was so powerful that if a toad looked at you after you had taken it, its eyes would crack!

ACTIVITIES

Remembering and understanding

- Using Sources 11.5.1 to 11.5.3, list the methods that were used by medieval people to avoid catching the plague.
- What was the flagellant movement?
 - Who did flagellants blame for the outbreak of the Black Death?

Analysing and applying

- Examine Sources 11.5.4 and 11.5.5.
 - When did doctors believe was the best time to let blood?
 - Why do you think it is recommended in Source 11.5.5 to bleed a plague victim at any time?
- Why do you think people would have initially supported the flagellants?
- Read Source 11.5.10.
 - What was happening to the Jews?
 - Why do you think the alderman and the nobles tried to help them?
 - Why do you think the mob wanted to banish them?

Evaluating and creating

- Using your list of methods from Question 1, rank each method from most to least helpful. Give reasons for your rankings. Compare your results with a partner or small group; has your ranking changed? Work with your class to create a final ranking.

The impact of the plague

Impact on society

A **pandemic** or **epidemic** that spread across continents and affected many countries, such as the Black Death, was bound to have both long-term and short-term impacts on societies in Europe, Asia and Africa. Some impacts were immediate, such as the disruption to daily life through the great loss of life. Other impacts emerged gradually over a longer period, permanently transforming societies.

Immediate effects of the Black Death

Population decrease

One of the most obvious impacts was the decrease in population. Historians estimate population losses of 35 to 50 per cent in Europe, with some even putting the figure as high as 60 per cent. It took 150 years for the population of Europe to reach pre-plague levels. Asian and African regions experienced similar death tolls. China's population of 120 million in 1200 had fallen to 65 million in 1393, although famine and Mongol invasions



Source 11.6.1 A fourteenth-century Venetian miniature depicting victims of the Black Death

also contributed to this depopulation. Towns in central Asia along the Silk Road all experienced population decreases, estimated to range between 30 to 70 per cent. The death rate was equally high in many regions of northern Africa. Worst affected were the seaports in regular contact through trade, with Europe and Asia. In total, the world population decreased by an estimated 75 to 100 million.

.....
After the pestilence, many buildings ... in all cities, towns and villages had collapsed ... in the absence of inhabitants. Likewise, many small villages were completely deserted ... all those who lived in them were dead. ... and the land everywhere remain[s] completely uncultivated ... before the pestilence, when there were plenty of priests, one could hire [one] for five marks, [now] ... there was scarcely anyone who wanted a position for twenty marks.
.....

Source 11.6.2 A contemporary account of England after the Black Death by historian and chronicler Henry Knighton, 1350

Labour shortages

Compared with pre-plague days, the worst affected areas looked very different. Many towns and villages were deserted or had few survivors. In London, streets were filthy, despite an order from King Edward III of England to clean them up, as few street cleaners survived the plague. Many shops and businesses remained closed. Farms were generally untended, which meant crop and livestock produce was very small and food was scarce. The severe shortage of workers resulting from the millions of deaths hindered economic recovery after the Black Death.

Burial pits

Large pits were dug to bury the large number of dead after cemeteries were filled. The dead were put out in the street and collected in carts every morning. Recent excavations in central London for a new railway link revealed plague skeletons in a mass pit. Historical records from 1348 refer to a mass grave of about 50 000 plague victims somewhere near this excavation site. The skeletons were in a shallow pit seven metres below the ground surface.



Source 11.6.3 Archaeologists work on the site of London's Crossrail Project in March 2013, after project workers discovered a mass burial site dating back to the Black Death in the fourteenth century.

Religion and the clergy

The large numbers of clergy, monks and nuns who died of the Black Death led some people to question the behaviour of religious people. Since it was believed that the Black Death was a punishment from God, many people concluded that religious people must have sinned. There was disappointment that the Church had failed to stop the plague. The loss of faith in the Church led to a decline in its power and status in society.

Long-term effects of the Black Death

Weakening of the feudal system

The feudal system was a system of social, political and economic organisation across Europe in medieval times. The king allotted land to lords in return for their military support when needed. In turn, peasants were allowed to farm the lord's land in return for services to the lord. These might include giving the lord one-third of their produce and working on the lord's land for a set number of days a year. These agricultural workers, called serfs or villeins, were bound to the lord who controlled all aspects of their lives. The word 'serf' came from the Latin word *servus* meaning 'slave'. Serfs could only farm the plot allocated to them. They were forbidden to move away from the manor, change occupations or even marry without permission from the lord.

The Black Death weakened the feudal system in Western Europe. The acute shortage of agricultural workers meant they were in demand. Workers went to manors where they would be offered better conditions. In order to retain workers, landlords were forced to pay improved wages. This often involved the agricultural worker simply paying the lord rent, instead of having to fulfil labour duties. Many peasants became prosperous during this time, earning up to five times more than before the Black Death. For lords, there was a doubling in the costs of operating the manor, compared with the period before the Black Death.

To keep costs down, lords sometimes switched to less labour-intensive forms of farming, such as raising animals, rather than growing crops such as wheat.

Peasant uprisings

The shortages of labour disrupted the feudal system, which threatened political and economic organisation. The English parliament passed the 'Statute of Labourers' in 1351, with measures such as not allowing labourers to move from one place of work to another for better wages and employers not being allowed to offer higher wages to entice workers. Similar laws were passed in Germany, Italy and France. These measures greatly affected the poorer classes and it is not surprising that they quickly became very unpopular. In 1381, a revolt broke out among the peasants, known as the Peasants' Revolt. This was in protest against the legislation, taxes and the fact that serfs, who were still tied to the land, were not free to work where they wished. Led by Wat Tyler, peasants marched to London with demands for reduced taxes and an end to the serf system. While the revolt was quickly suppressed, it did make the government reluctant to increase taxes any more and demonstrated that peasants had the will and power to challenge the longstanding feudal system.

Social mobility

The severe labour shortages, the peasant uprisings and the weakening of the feudal system broke down the social structure. Peasants became upwardly mobile. Where they had been at the lowest level of society before the Black Death, their improved pay enabled their status to improve as they gained wealth. On the other hand, many wealthy people suffered financially because the cost of running their estates greatly increased with high labour costs as the feudal system disintegrated. New job opportunities arose. Due to the large number of deaths across all levels of society, survivors could move into positions in the Church, crafts and government.



Source 11.6.4 The Peasants' Revolt of 1381 at Smithfield, London. King Richard II met the rebels and agreed to their demands. Violence broke out and their leader, Wat Tyler, was killed.

Medical knowledge

There was a much greater awareness of the importance of public health and of the need to keep cities cleaner and provide hospitals. Changes in the study of medicine also took place, leading to a greater expansion of medical knowledge. Medical textbooks were written in the common language rather than in Latin, which meant many more people gained access to medical knowledge.

BETTER HEALTH

Recent studies by anthropologists of post-Black Death skeletal remains suggest that the standard of living, especially diet, improved in the period after the plague. Mortality rates dropped and people were generally healthier.

ACTIVITIES

Remembering and understanding

- 1 Why do you think historians cannot agree on the numbers who died during the Black Death outbreak in 1347–1348?
- 2 What was the feudal system?
- 3 How was the feudal system weakened by the Black Death?

Analysing and applying

- 4 Read Source 11.6.2. What effect did the Black Death have on the countryside?

Evaluating and creating

- 5 Create a list of the positive and negative effects of the Black Death. With a partner, rank them in order of the most to least important and justify your ranking.
- 6 Draw a social pyramid of England before the Black Death occurred. Explain how this social pyramid changed after the Black Death.