BRING OUT YOUR DEAD

Stephen Mortlock tells the tale of the plague that ravaged London and asks whether it was really stopped by the Great Fire.

London in the 17th century was a thriving, growing city, with a population estimated to be around 384,000. The metropolis was by far the country's largest and richest city; it was the home of the principal royal palace, Parliament, and the courts of law. Its growth since the mid-16th century, when its population had been roughly 120,000, had brought problems of overcrowding and poor housing, with buildings being divided and then further subdivided until the gardens and yards were obliterated.

The only way people had to get rid of rubbish was to throw it out into the streets. This would be normal household waste, human waste and a combination of straw, animal dung, animal entrails from the slaughter houses and, of course, discarded beer (which, was safer to drink than the water from the Thames).

As a result, London in 1665 was filthy and a perfect breeding place for the rats carrying the plague that had been ravaging the city for almost a year. This was the worst outbreak of plague in England since the Black Death of 1348. London lost roughly 15% of its population and while 68,596 deaths were recorded in the city, the true number was probably over 100,000. Historians believe that the 1665 epidemic reached England from Holland (Amsterdam was ravaged with plague from 1663-1664, with a death toll of about 50,000), arriving with trading ships carrying bales of cotton during the winter of 1664.

The first cases of plague were reported to be two French merchants, who died in London during December, but the weather and temperatures during the winter were very extreme, which probably prevented the infection spreading. The next recorded cases of disease occur in the spring of 1665 in the parish of St Giles-in-the-Fields outside the city walls (near the modern Tottenham Court Road), which then spread through the narrow alleys to the crowded and squalid parishes of

Whitechapel and Stepney on its way to the walled city of London.

The death rate began to rise during the unusually hot summer months and by September had reached nearly 8,000 people a week. Houses containing the dead and dying were no longer locked, as helpless municipal authorities threw their earlier caution to the wind and simply abandoned quarantine measures.

In the eyewitness account *Loimographia* (1665), William Boghurst attributed the plague's causes to filth and squalor, with inadequate disposal of sewage, and poor nutrition among London's impoverished residents. He criticised the treatments of bleeding, purging, and fumigating houses and objected to quarantining infected households since this was "oft enough tried and always found ineffectual".

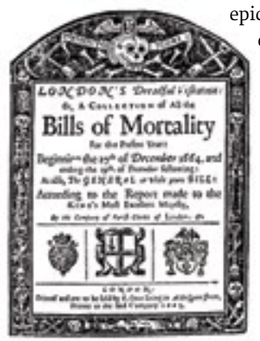
Samuel Pepys' diary has been an important primary source of data and first-hand account for the Great Plague, and he gave a vivid account of the empty streets with almost daily references to the mournful silence broken only by the noise of the searchers (people paid to hunt out dead bodies or possible plague victims) shouting "bring out your dead", and the sound of the carts carrying them away to parish churches or communal plague pits, such as Finsbury Field in Cripplegate and the open fields in Southwark. The Bedlam burial ground (the site of Crossrail's new Liverpool Street station) was in use from 1569 to at least 1738, spanning the start of the period of Elizabethan explorers, the English civil wars, the Restoration, Shakespeare's plays and numerous plague outbreaks. Recent excavations suggest that perhaps 30,000 Londoners are buried here.

Epidemics

Of course plague was only one among many epidemic diseases which afflicted this period: typhus and dysentery were common, influenza killed many more people, and the rate of population growth continued to be determined by the many childhood diseases, like measles and whooping cough. Smallpox was prevalent, killing thousands and disfiguring many more; reports suggest that as many as half of London's citizens bore the unmistakable "pockmarks". Tuberculosis, or consumption, was another prolific killer, its symptoms exacerbated by the smoke and poor air of the city.

Why then is plague often selected for special prominence as a harbinger of doom? Although it was feared and loathed, plague was strangely familiar, due to its suddenness and cyclical character. When not living through an epidemic, Europeans were anxiously preparing for the next one. One feature of the plague is that it travelled slowly and was generally confined to towns where the concentration of houses favoured the sedentary nature of the black rat, who preferred to live in the roof spaces and where there was a plentiful supply of food. The second feature is that it was distinctively a disease of the poor, and studies reveal that there were very few upper-class victims.

In 1665, the mortality rates in the poorer parishes and suburbs to the south and north-east of the city were double those in the centre. This may be explained in part by the withdrawal of the rich to the countryside at the beginning of epidemics, but must largely be due to the nature of the buildings inhabited by different social groups, for well-maintained houses with tiled roofs would harbour far fewer rats than the ramshackle huts of the poor. This was illustrated during the outbreak, when most of the city's aldermen and suburban justices stayed at their posts - yet none died as they lived in better houses. The final aspect is that plague is essentially a disease of the household, a characteristic again derived from rodent infestation of the family home. Once the rats of a particular house were infected, it was likely that most, if not all, of its human inhabitants would develop the disease, whether young or old, male or female.


LONDON'S Dreadful Visitation:
OR, A COLLECTION of All the
Bills of Mortality
For this Present Year
Beginning the 29th of December 1664, and ending the 19th of December following:
Wherein, The GENERAL or whole year's BILL:
According to the Report made to the KING's Most Excellent Majesty,
By the Company of Parish Clerks of London, &c.

The Great Fire

On the night of September 2, 1666, however, a small fire began in the bakeshop of Thomas Farynor on Pudding Lane. At one o'clock in the morning, a servant woke to find the house aflame. The baker and his family made their escape, but one of their maids perished in the blaze. At this time, most London houses were of wood and pitch construction, dangerously flammable, and it did not take long for the fire to expand. The fire leapt to the hay and feed piles on the yard of the Star Inn at Fish Street Hill, and then spread to the inn itself. There was a strong wind that night which sent sparks to ignite the church of St Margaret, and then spread to Thames Street, with its riverside warehouses and wharves filled with food for the flames: hemp, oil, tallow, hay, timber, coal and spirits. Lord Mayor Sir Thomas Bludworth (1620-1682) was woken up to be told about the fire, and was reported to have replied: "Pish! A woman might p*ss it out!"

However, the summer had been very hot and there had been no rain for weeks, so consequently the wooden houses and buildings were tinder-dry. The citizen fire-fighting brigades had little success in containing the fire with their buckets of water from the river. By eight o'clock in the morning, the fire had spread halfway across London Bridge. The only thing that stopped the fire spreading to Southwark, on the other side of the river, was the gap caused by a previous fire in 1633.

Bludworth worried about the cost of rebuilding, was hesitant to destroy the houses in the path of the flames, creating "fire-breaks", and by the time a royal command came down, carried by Samuel Pepys himself, the fire was moving rapidly across the city. This inaction by Bludworth has been blamed for much of the damage to the city. But now, the houses were being demolished by gunpowder; unfortunately the remaining jumble of wood was often too much to be cleared away before the fire was at hand, and it only slowed the fire's path onward.

The fire blazed unchecked for another three days, until it halted near Temple church, located between Fleet Street and the River Thames. Then, without warning it suddenly sprang to life again, continuing towards Westminster. The Duke of York (later King James II) had the presence of mind to create a fire-break, and the fire finally died down. The Great Fire of London was over.

IMAGES: ALAMY

Aftermath

Although the loss of life from the fire was minimal (some sources say only 16 perished), the magnitude of the property loss was staggering. Some 430 acres, as much as 80% of the city proper, was destroyed. Thousands of citizens found themselves homeless and financially ruined. The Great Fire, and the subsequent fire of 1676, which destroyed over 600 houses south of the river, changed the face of London forever. Charles II appointed six commissioners to redesign the city with wider streets and buildings of brick, rather than timber. Five years later, 9,000 houses and public buildings had been completed. Sir Christopher Wren (1632-1723) was commissioned to design and oversee the construction of nearly 50 churches, including a new St Paul's Cathedral, construction of which began in 1675. The King also had Wren design a monument to the Great Fire, which still stands today at the site of the bakery which started it all, on a street now named Monument Street.

One positive effect of the fire was that the plague, which had been spreading throughout London, diminished greatly, due to the mass death of the plague-carrying rats in the blaze and the destruction out of the old wooden buildings. It is now thought, however, that the plague had already started to subside before the fire. Certainly, many of the later cases of plague were found in the suburbs, and it was only the City of London that was destroyed by the fire.

The conception for many years was that the culprit for the disease was bubonic plague, spread by the fleas of infected rats. New evidence suggests the infection was in fact a combination of bubonic plague and the airborne infection – pneumonic plague – which is far more infective and can be spread by coughs and sneezes. So, the infection was spread human to human, rather than by rat fleas that bit a sick person and then bit another victim. This would account for the rapidity of the epidemic.

In 2005, C J Duncan and S Scott theorised in the *Postgraduate Medical Journal* that the plague was not caused by *Yersinia pestis* at all, but was in fact a viral haemorrhagic fever, probably a filovirus. It has been shown that the Black Death did spread remarkably rapidly, with vast areas of Europe being affected in less than three years. This is in contrast with an epidemic of bubonic plague, which moves very slowly; the black rat tends to have limited mobility.

But DNA has been analysed from skeletons excavated from the Bedlam burial ground with a significant proportion of the samples testing positive for *Yersina pestis*. So there is sufficient evidence to support the theory that these victims were exposed and succumbed to plague bacteria, but it may be that each epidemic was caused by multiple factors. But whatever the cause, this was the last major outbreak of plague in Britain. BMS

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