

Black Death: A Disaster in European Civilization

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ABSTRACT

The Black Death which occurred in Medieval Europe not only shattered the backbone of civilization in manifold ways, but it had far-reaching consequences on population scale, literature, art, architecture, music and films. The most evil effect of the peril was that it broke the morals of the people which shaped the course of civilization in a very crude way. There are many scientific theories regarding the origin and spread of plague; still researches are being carried out in this dimension in the 21st century regarding this hazardous event. On the whole, Black Death, which was a happening of yester years, remains to be a very controversial topic even today. The Black Death of the Middle Ages created a saga of terror, turmoil and tears and left a penetrating scar of anguish and atrocity on mankind. But it paved the path for the creative blossoms, i.e. the Renaissance and the Reformation that ushered in Europe out of the ashes of the Black Death/

Keywords: Black Death, Plague, Epidemic, Bubonic Plague, Pneumonic Plague, Septisemic Plague, Disease, Disaster, Civilization.

Introduction:

Black Death was one of the biggest disasters that created a havoc in European civilization in the 14th century. It is described as man-made disaster – an epidemic which proved to be damaging for European civilization and culture. This event ruined one third of the population of Europe i.e. almost 34 millions of people during 1347-50. The Black Death also created a tormer in many Asiatic and Middle-Eastern countries. It is said that this epidemic recurred in Europe with intense density and ruinous effect in Italy (1629-1631), in London (1665-66) and in Vienna (1679). The initial 14th century European

event was called the ‘Great Mortality’ by contemporary writers and the later outbreaks became known as the ‘Black Death’ because of a striking symptom of the disease, called *Actral necrosis*, in which sufferers’ skin would blacken due to subdermal hemorrhages. Historical records attribute the Black Death to an outbreak of bubonic plague, an epidemic of the bacterium *Yersinia pestis*, spread by fleas with the help of animals, like the black rat (*Rattus rattus*), one kind of squirrels from America, bushy dogs etc. Today’s experts are still in debate regarding the microbiological culprit and mode of transmission.

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The result of the plague was not just a massive decline in population. It irrevocably changed Europe's social structure in the sense that it gave a tremendous blow to Europe's predominant religious institution, like the Roman Catholic Church. It caused widespread persecutions of minorities like Jews and Lepers and caused a general mood of morbidity that influenced the people to live for the moment, unsure of their daily survival.

Origins of the Black Death:

Historians from different corners of the world have not yet reached to any decisive point that what was the actual origin of this disastrous plague. The medieval European authors believed that the origin of this plague disease was China, which was one of the ancient places of black magic. These authors believed that the plague disease evolved out of some inhuman or occult forces, which have been identified with earthquake and rainfall with insects and rats. These facts have been collected from the ancient folklore of China and Middle East. Some other historians believe that some sharp-teethed rats carrying the germs of plague travelled from Middle East to Southern Russia accompanied by some merchants. This area was very vital; it was the area between Black Sea and Caspian Sea. In this way, plague spread to different parts of Europe through different routes – a) The route from Tartar of Southern Russia to nearby colonies of Black Sea in Italy (1346). b) Another route reached Alexandria in Egypt in 1347. c) The route reached Damascus and Libya in 1348 and d) It reached Upper Egypt in 1349. It has been known that the Venetian and Genoese sailors carried this disease to Europe e) The plague next travelled from Southern France to

England in 1348 and to the Low Countries in 1349. The countries which could escape the disease were Milan, Germany and Central Europe. Bohemia, Poland and Central Germany could also remain safe till 1370.

There is still another version that the origin of this epidemic was North India in Asia Minor. The merchants and the Mongol barbarians used the **Silk Route** very often and this was a good accessory to the disease to be spreaded widely.

Pattern of the Pandemic:

Historians like David Herilthy and others believe that there were specific reasons for the spread of the plague epidemic in different parts of Europe.

Firstly, there was a terrible Civil War in China which was followed by a fall in economic standard from 1205 to 1353 which led to severe damage in agricultural products and trade products. This event later turned into a wide-spread famine. The '**Little Ice Age**' started from the end of 13th century, which brought about a drastic change in the climatic sphere. Terrible **Cold Wave** devastated the animal as well as the plant kingdom to a great extent. These twin reasons, according to the above-mentioned historians were responsible for the spread of this havoc-making disease in Europe.

Secondly, from 1315 to 1322, the entire Northern Europe was engulfed by a fatal famine. Food crisis accompanied by rise in price of goods gave shape to new dimensions of socio-economic crisis. There was great decrease in quantity of wheat, maize, hay and cattle. The common people became the victims of stupendous hunger and mal-nutrition. It so happened that men gradually lost their immunity power to check the epidemic.

Thirdly, the Great Famine affected some of the countries to a large extent, like, Flanders and Burgandy. It is said that Typhoid epidemic gave a signal for ensuing danger before the occurrence of the actual Plague epidemic. Many thousands died in populated urban centres, most significantly in Ypres. In 1318, a pestilence of unknown origin, sometimes identified as anthrax, hit the animals of Europe. The disease targeted sheep and cattle, further reducing the food supply and income of the peasantry, putting another strain on the economy. The increasingly international nature of the European economies meant that the depression was felt across Europe. Due to pestilence, the failure of England's wool exports led to the destruction of the Flemish weaving industry. Unemployment bred crime, which finally reaped the roots of poverty all over Europe.

Fourthly, according to historians like Robert Gattfried, the carrier of the plague disease was a kind of bacteria, the name of which was *Yersinia pestis* seen at 2000 x magnification. This theory implies that this bacteria might cause the mortality of millions of people. Historians like Gattfried believed that Europe, in the 14th century fell victim to such a vicious environment from which there was no escape.

Forms of Plague: The experts give the opinion that there are usually three types of plague—i) **Bubonic** ii) **Pneumonic** iii) **Septisemic**. Bubonic and septisemic plague usually occur due to contact with flies. When the bacteria enters into the body of a fly, the fly feels extremely hungry and the fly meets its appetite by biting fiercely. In time of biting, the bacteria infected poisoned blood pierces the injured area of a person and automatically the person becomes plague infected, while the hungry fly dies.

Pneumonic plague carries a kind of saliva infection which is blown through air and this infection affects a person's lungs and throat areas. As a result of this, these areas become swollen, one develops breathing problem and finally succumbs to death.

Signs and Symptoms: i) In **Bubonic plague**, there is terrific pain in the body muscles and there are also swells in specific parts of body. ii) In **Pneumonic plague**, blood is found with sputum, later the sputum is totally turned into blood with increasing degree of fever. iii) In **Septisemic plague**, the entire body becomes purple, because of entry of **disseminated intravascular coagulation (DIC)** poison in the body.

People were mostly affected by the first two types, the third variety was lesser in scale. The most prevalent type was the Bubonic type – where, people died within seven days of the detection of the disease. Black scars were found all over the body in this Bubonic form. Thousands and millions of people fell victims of this disease and the disease spread like havoc from ports to cities.

Alternative Explanations: A completely new theory has been invented by Mark Derr, John Kelly and some other scientists in the 21st century that the plague epidemic was originated from black rats (*Rattus rattus*). This theory tells us that these black rats traversed through the trade routes of Asia Minor to Europe and contaminated the big brown rats of Norway. (*Rattus norvegicus*). According to these scientists, rat ecology had interaction with human ecology which resulted in wide-spread prevalence of plague all over Europe.

However, recent scientific and historical investigations have led researchers to doubt the long-held belief that Black Death was an epidemic

of Bubonic plague. For example, in 2000 Gunnar Karisson (**Iceland's 1100 years: The History of a Marginal Society**) pointed out that the Black Death killed between half and two-thirds of the population of Iceland, although there were no rats in Iceland at this time. Rats were accidentally introduced in Iceland in the 19th century, and have never spread beyond a small number of urban areas attached to seaports. In the 14th century there were no urban settlements in Iceland. Iceland was unaffected by the later plagues which are known to have been spread by rats.

In 1984, Graham Twigg published '**The Black Death: A Biological Reappraisal**', where he argued that the climate and ecology of Europe and particularly England made it nearly impossible for rats and fleas to have transmitted bubonic plague. Modern researchers of plague epidemiology have proved that the biological information which are available about *R. rattus* and *R. norvegicus* and the common fleas, *X. cheopis* and *P. irritans* were native species in India. Twigg concludes that it would have been nearly impossible for *Y. pestis* to have been the causative agent of the beginning of the plague. Twigg also shows that the common theory of entirely pneumonic spread does not stand anywhere. He proposes, based on a re-examination of the evidence and symptoms, that the Black Death may actually have been an epidemic of pulmonary anthrax caused by *B. anthracis*.

In 2001, epidemiologists Susan Scott and Christopher Duncan from Liverpool University proposed the theory that the Black Death might have been caused by an Ebola-like virus, not a bacterium. Their rationale was that this plague spread much faster and the incubation period was

much longer than other confirmed *Yersinia pestis* plagues. A longer period of incubation would allow carriers of the infection to travel further and infect more people than shorter one. These researches are exposed to us through the book called '**Return of the Black Death: The World's greatest Serial Killer**'.

In a similar vein, historian Norman F. Cantor, in his book '**In the Wake of the Plague**' (2001), suggests the Black Death might have been a combination of *pandemics* including a form of *anthrax* a cattle *murrain*. He cites many evidences including reported disease symptoms not in keeping with the known effects of either bubonic or pneumonic plague, the discovery of anthrax or pneumonic plague, the discovery of anthrax spores in a plague pit in Scotland and the fact that the meat from infected cattle was known to have been sold in many rural English markets prior to the onset of the plague. It is notable that the level of infection varied widely, from human to human contact as in Sicily (which speaks against a virus or in this specific case, anthrax).

Apart from Christian evidences, Chinese and Muslim medical records suffice us with reliable medical records which are expected to be more informative.

Historians do believe that the spread of the plague could be due to low levels of immunity in that period's European population. Historical examples of pandemics of other diseases in populace without previous exposure, such as smallpox and tuberculosis amongst American Indians, show that the low levels of inherited adaptation to the disease cause the first epidemic to spread faster and to be far more virulent than later epidemics among the

descendants of survivors. Also, the plague returned again and again and was regarded as the same disease through succeeding centuries into modern when the *Yersinia bacterium* was identified.

It is interesting to go through the findings of tooth pulp tissue from a 14th century plague cemetery in Montpellier from which the germs of *Y. pestis* DNA could be detected. However, such a finding was never confirmed in any other cemetery in the Christian world. In September 2003, a team of researchers from Oxford University tested 121 teeth from 66 skeletons found in 14th century mass graves. The remains showed no genetic trace of *Yersinia pestis* and the researchers suspect that the Montpellier study was at flaw.

Recurrence of Plague: The 14th century Black Death (1347-50) scenario was once again repeated in Europe in the 17th century, amongst which the most ill-famous was ‘**Great Plague of London**’ (1665-66). This recurrence sounded the death-knell of many millions in England. **The Great Fire of London** (1666) brought a respite to the incident in the sense that it destroyed the plague germs, specially the carriers of plague, i.e. the black and brown rats to a great extent.

The next plague occurrence took place in Italy in 1629-31. Historians are of opinion that this plague germ was carried by the soldiers of the **Thirty Years’ War**. In 1679 plague prevailed in Vienna, which according to some historians had its roots from the trade ports of the Occident through the merchants. The last plague, is recorded to have taken place in 1722 in Western Europe.

Disappearance of the Plague: The causes of depletion of plague epidemic from European soil are focused to be i) Great Fire of London ii) the

growing immunity capacity of the people in general iii) the growing awareness of the people and the preventive measures taken up by the people.

Preventive Measures (Management): Paul Slack in his famous article called ‘**Disappearance of the Plague: An Alternative view**’ enumerated several reasons for the disappearance of the plague and the preventive measures that were taken up by the people themselves to do away with such a damaging demise. After much researches, it was analyzed that the plague disease had its occurrence in first summer and in first autumn. After much exploration, it has been also found out that the disease spread mostly in poverty – stricken areas and in congested town areas. An Italian Researcher, named Giralamo Fracastoro first discovered the fact that the disease originated from poor slum areas. The first preventive measure which was taken up by the people of medieval Europe was that they tried to remain aloof from the infected person. They migrated in large numbers from the infected towns to far away village and suburb areas. They regarded the measure to be most wise. There are evidences in some of the families, that the diseased person was left alone in charge of a servant and the rest of the family members fled away to distant places. In some other families, one member only took the responsibility of buying the food products and doing the outside works alone in order to avoid contamination. The richer families remained little safer, because they could maintain at least some hygienic measures.

The quarantine method first started in Italy in the 15th century. A family, a colony or a town was completely disjointed with other connections for the safety of public health. Again, it was in Italy

first, that the diseased people were immediately taken to plague hospitals. Severe inspective measures were regulated on travellers from other places and they had to show medical certificates that they were not carrying plague germ. Strict measures were also taken by 16th century to allow people to get out of **Quarantine Area**.

In the 17th century, when Medical Science became much improved, the Govts of different European countries took the precaution of creating a Medical Boundary or **Cordon Sanitaire**, so that entry of plague could be checked from the eastern countries. Each traveller from Ottoman Empire had to undergo medical test and every ship had to wait in the Quarantine Area for checking of every passenger minutely. The Roman Government also established a Medical Border beyond the river Danube for limiting the contacts with the Ottoman Empire. The citizens, who tried to violate these rules were shooted mercilessly. It seems that the Cordon Sanitaire proved successful to a certain extent, because plague could be checked in Western Europe by the end of 16th century. But Bubonic Plague still kept stirring in the coastal areas of the Mediterranean Sea for many more years.

Consequences: Depopulation: The disastrous consequence of the plague epidemic befell on mortality of people at large, which depopulated many cities and towns in a ruthless manner. The contemporary chronicles have described Black Death as a 'horrible and cruel thing.' As a result of the occurrence of plague, the Jews and Lepers were tormented to a cruel extent. Some people nurtured the idea that the Jews and Lepers were mainly responsible for contaminating air and water, i.e. the environment in a fatal manner. This led to cruel

slaughter of these two sections of people by others. The Jews were put to death by fire or they were drowned in any kind of waterbody forcibly. This kind of practice first started in Southern France. The level of torcher reached maximum in Switzerland and Germany. Bern witnessed the torcher on Jews to its most cruel limit. The Popes of Catholic Church tried their best to stop these inhuman exploitative measures on Jews and Lepers, but they were not much successful. The level of cruelty decreased only when plague slowly diminished from the European countries in its normal process.

Modern researches reveal that one third of the population of Europe were depleted as a result of this plague epidemic. The demographic record tells us that out of 12,000 people in Bremen in Germany, 7000 lost their lives. In the flourishing city of Florence of Italy, out of 90,000 people, 40,000 succumbed to death. In Paris, the beautiful city of France, out of 180,000 people 50,000 accepted mortality. All big cities turned into graveyards. Some other cities remained barren because of high degree of migration from towns to villages. The artisans and the merchants were the first to migrate to remote places. This damage on European population was unrepairable.

The contemporary records unfold the fact that in Hubei district of China, 90% population was distressed. In China, total 8 districts were devastated by the black blemish of plague. It is estimated that 25 million people fell death victims. Comparatively Poland and Lithuania were safer in position than most of the countries in Western Europe. In the opinion of John Kelly "Woefully inadequate sanitation made medieval urban Europe

so disease-ridden, no city of any size could maintain its population without a constant influx of immigrants from the countryside. The influx of new citizens facilitated the movement of the plague between communities and contributed to the longevity of the plague within larger communities.”

It was quite impossible to calculate the mortality rate of the people in Middle East. The mortality rate was higher in village areas, particularly in the village areas of Palestine and Syria. It has been recorded that the village people vacated their accommodation and planting plots and migrated to other places in large number. In 1348, there is the report that 10,000 dead bodies were found in Ghaza and in Aleppo; there is the report of daily mortality of 500 people. In the same year, in Damascus, there is the report of 1000 mortality. In 1349, in Syria there is the report of 400,000 deaths and it is also reported that plague was almost extinct in other parts by that time.

Socio-Economic Effects: During the time of epidemic, many kings and kingly families stopped export market with the outside countries for checking plague. Strict control was kept over black-marketing and fishing on large scale was declared illegal. All these measures were undertaken in order to check contamination from plague. But as a result of water mismanagement, the number of pirates increased and their onslaught also increased.

From 1337 onwards, there began the famous Hundred Years' War between England and Scotland which led to severe economic distress, demographic disaster and infrastructural damage. The ill-effects of the Hundred Years' War was accompanied by the plague epidemic which resulted in terrible famine and economic **inflation**.

Economic historian Fernand Braudel expresses

his view that as a result of Black Death i) the power of the Church decreased b) there cropped up alarming revolts, like the **Jacquerie Revolt** in France, **Ciompi Revolt** in Italy (it devastated the city of Florence completely) and the **English Peasant Revolt** in England. According to Braudel all these happenings were the resultant effects of the economic depression cropping out of Black Death.

Some historians are of opinion that as a result of sudden scarcity in labour, the landlord section started appointing new labourers who got better salary and better incentives. This created a gulf between the traditional workers and the new workers of the 15th and 16th century and this was one of the vital reasons for the roots of capitalism. The same pattern was repeated in case of landed aristocrats, who found that acres of cultivable land remained barren because the peasants fled far away in fear. New sections of peasants got assignments and after 1470, drastic social changes followed in trail. According to a group of historians, these eventful years gradually paved the path for the Renaissance and Reformation in Europe.

In Eastern Europe, events took an opposite turn. The traditional farmers were kept attached with their old plots through the process of serfdom. Historians opine that because of lesser impact of Black Death on Eastern Europe, the people could sustain their old way of living.

Precautions: Black Death incurred upon the people of Europe some fanatic and barbaric beliefs, from which they could not recover for a long time. It has been mentioned earlier that the Jews became the worst victims of torcher, because there grew the stubborn belief that Jews were the carriers of this disease. The Jews were killed in inhuman ways and

by 1351, 60 major and 150 minor Jew communities were completely destroyed. The Jew **Ghettos** were totally detached from the main towns. The lepers became the second victims, because there was general religious norm that due to acute sins committed by a section of people, leprosy, which was an alarming skin disease prevailed among them. As Bubonic plague also was initiated with black scars, leprosy was suspected to be connected with it in some way or other. So, the innocent lepers were also torched in a brutal manner as carriers of plague.

Religion: People became so ferocious and bewildered at that time that they came to believe that the Church was an useless citadel representing religious dictums and faith. The Popes and Monks were ridiculed and hated because of their incapacity of redressing the disease. Some people also started to believe that they themselves were responsible for bringing about such a big curse on society. They became so much desperate that they began caning themselves for avenging their sins. The Church itself became stupefied at this awesome hazard and found no way for redress of the disease. The Papal system became very unpopular under Pope Clement VI. This age has been described as the age of **Babylonian Captivity** because of its despair, disdain and degradation. Some of the monasteries got much affected by plague because their abodes were in close vicinity with the plague dwellers. This resulted in a mass influx of new clergy members, most of whom did not share the life-long convictions and experiences of the veterans they replaced. This again resulted in abuses committed by the clergy in years afterwards and a further deterioration of the position of the

Church in the eyes of the people.

Other Social Effects: The other social effects which were felt on society were thefts, dacoity, prostitution, addiction to liquors etc. which were some of the ugly and ancient evils of society.

Black Death in Literature: The black shadow which had its curtain dropped in the Medieval European stage due to Black Death was reflected in literature of the time. Actually, an overall depression was set in different layers of society and literature was one of the main avenues through which this state of depression would be best unravelled. Agnolo di Tura the Fat of Siena records his experience like this:

“Father abandoned the child, wife husband, one brother another; for this illness seemed to strike through the breath and sight None could be found to bury the dead for money or friendship. Members of a household brought their dead to a ditch as best as they could, without priest, without divine offices . . . great pits were dug and piled deep with the multitudes of dead.

. And I, Agnolo di Tura, called the Fat, buried my five children with my own hands. And there were also those who were so sparsely covered with earth that the dogs dragged them forth and devoured many bodies throughout the city.”

The scene Di Tura describes is repeated over and over again all across Europe and these personal experiences were told by Gabriel de ‘Mussi from Sicily, Henry Knighton from England and others.

In addition to these personal accounts, many presentations of the Black Death have entered the general consciousness as great literature. For example, the major works of Boccaccio (**the Decameron**), Petrarch, Geoffrey Chaucer (**the**

Canterbury Tales) and William Langland (**Piers Plowmen**) are all documents of death that blurred the society with its black blemishes in the medieval times. Alexander Pushkin's "**Feast in the time of the Plague**" carries a lofty weight in literature in this connection.

Black Death in Art, Architecture & Music: A kind of distortion and ugliness could also be identified in art, architecture and music. **Le Danse Macabre** or the Dance of Death, is an allegory on the universality of death, expressing the common wisdom of the time that no matter one stations in life, the dance of death united all. It consists of the personified Death leading a row of dancing figures from all walks of life to the grave – typically with an emperor, king, pope, monk, youngster, beautiful girl, all in skeleton-state. Other artistic examples are from the frescoed cemetery of the Church of the Holy Innocents in Paris (1424), works by Knorad Witz in Basel (1440), Bernt Notke in Lubeck (1463) and Woodcuts by Hans Holbein the Younger (1538). The paintings of **Oreagna** (1354-57) expose a picture of terrorized distorted figures of the age. Francesco Trainis' '**The Triumph of Death**' (1350) is a fantastic distorted painting in this arena. Philippe Aries painted the excellent picture named '**The Hour of our Death**' with unique artistic sense.

In Eastern Europe too, some instances of this kind of art are found especially in mosque architecture. The walls of certain Madrasas of 1356-61 bear the evidences of this art.

Black Death had its impact on Music also and the music that were composed during this period were mainly Church Choirs. But these Church Choirs were devoid of the earlier tunes of devotion, love, joy and optimum. These were all melancholic

symphonies which exemplified the depressed mental state of affairs of the people of the time.

Modern Films: Some of the film directors tried to depict the art of death in their films in a very intricate manner. One such example is **Det sjunde inseglet** (**The Seventh Sea**) by Ingmar Bergman (1957) which was a real sensational film. In 1988, a Science Fiction, named '**The Navigator – A Medieval Odyssey**' also could create some impressions on spectators about Black Death.

Modern Novels – Some modern novels, like Hugo Award Winning Fiction Novel, '**Dooms – Day Book**' (1993), '**The Years of Rice and Salt**' by Kim Stanley Robinson (2002) unfold some of the glaring pictures of Black Death, which shattered men and mankind to its cruelest extent.

Conclusion: The 'Black Death' of Europe in the 14th century and its after years brought about gruesome deaths in millions, devastated the society and its morals, penetrated deeply in the economy of the time, impoverished men both mentally and socially. The preventive measures which were undertaken were very slow in comparison to the gnawing bruises in people's soul and the soil of Europe which could not be erased so easily. The healing effects which brought solace in society later, could not rescue it however from its gloomy impact on literature, art, architecture, music and overall on human morals. So, Black Death really proved to be a disastrous disaster that brought about a black effect on European civilization of 14th, 15th and 16th century.

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