The 14th century was an era of catastrophes. Some of them man-made, such as the Hundred Years' War, the Avignon Papacy, and the Great Schism. These were caused by human beings, and we shall consider them a bit later. There were two more or less natural disasters either of which one would think would have been sufficient to throw medieval Europe into a real "Dark Ages": the Great Famine and the Black Death. Each caused millions of deaths, and each in its way demonstrated in dramatic fashion the existence of new vulnerabilities in Western European society. Together they subjected the population of medieval Europe to tremendous strains, leading many people to challenge old institutions and doubt traditional values, and, by so doing, these calamities altered the path of European development in many areas.

The Great Famine of 1315

Thomas Malthus (1766-1834), an English political economist, wrote a powerful treatise called *An Essay on Population*. In it, Malthus stated that, since production increased arithmetically (2, 4, 6, 8, 10) and population increased geometrically (2, 4, 8, 16, 32), the population of a region or a world will eventually increase until there are not sufficient resources to support it. From 800 to 1300, the total production of Europe had increased steadily. Although there had been local food shortages in which many people died of starvation, the standard of living in Western Europe as a whole had risen even while the population had steadily increased.

By the beginning of the 14th century, however, the population had grown to such an extent that the land could provide enough resources to support it only under the best of conditions. There was no longer any...
margin for crop failures or even harvest shortfalls. At the same time, however, the Western European climate was undergoing a slight change, with cooler and wetter summers and earlier autumn storms. Conditions were no longer optimum for agriculture.

We have noted that there had been famines before, but none with such a large population to feed, and none that persisted for so long. A wet spring in the year 1315 made it impossible to plow all of the fields that were ready for cultivation, and heavy rains rotted some of the seed grain before it could germinate. The harvest was far smaller than usual, and the food reserves of many families were quickly depleted. People gathered what food they could from the forests: edible roots, plants, grasses, nuts, and bark. Although many people were badly weakened by malnutrition, the historical evidence suggests that relatively few died.

The spring and summer of 1316 were cold and wet again, however. Peasant families now had less energy with which to till the land needed for a harvest to make up for the previous shortfall and possessed a much smaller food supply in reserve to sustain them until the next harvest. By the spring of 1317, all classes of society were suffering, although, as might be expected, the lower classes suffered the most. Draft animals were slaughtered, seed grain was eaten, infants and the younger children were abandoned. Many of the elderly voluntarily starved themselves to death so that the younger members of the family might live to work the fields again. There were numerous reports of cannibalism, although one can never tell if such talk was not simply a matter of rumor-mongering.

You might remember the story of Hansel and Gretel. Abandoned in the woods by their parents during a time of hunger, they were taken in by an old woman living in a cottage made of gingerbread and candy. They saw that the old woman was bringing in wood and heating the oven, and they discovered that she was planning on roasting and eating them. Gretel asked the woman to look inside the oven to see if it was hot enough, and then pushed her in and slammed the door. Like most of Grimm's Fairy Tales, this is a rather late tale, but it is illustrative of the grim possibilities with which the old tales for children are fraught.
The weather had returned to its normal pattern by the summer of 1317, but the people of Europe were incapable of making a quick recovery. An important factor in this situation was the scarcity of grain available to be used as seed. Although historians are still unsure of the validity of the figures, records of the time seem to indicate that a bushel of seed was needed in order to produce four bushels of wheat. At the height of the hunger in the late Spring of 1317, starving people had eaten much of the grain normally set aside as seed, as well as many of their draft animals. Even so, any of the surviving people and animals were simply too weak to work effectively. But about ten to fifteen percent of the population had died from pneumonia, bronchitis, tuberculosis, and other sicknesses that the starving sufferers' weakness had made fatal, and there were consequently fewer mouths to feed. So Europe was able to recover, although only slowly.

It was not until about 1325 that the food supply had returned to a relatively normal state, and population began to increase again. Europeans were badly shaken however. The death rate had been high, and even nobles and clergy had perished from hunger. The world now seemed a less stable and "gentle" place than it had before the Great Famine. Another folk tale that arose about this time suggests a new and more violent attitude among the populace, the story of The Mouse Tower of Bingen.

The land of the prince-bishop of Bingen, a district on the Rhine river above Cologne, had suffered a severe short-fall in its harvest, and food was in very short supply. Nevertheless, the bishop demanded that everyone pay him their full rents and taxes in money and in kind. He then used the money to buy up what food remained in the market, and stored all of it in the fortress tower in which he lived. He dismissed all of his dependents and servants, and then shut and locked all of the gates and doors to the tower in order to be sure that people would not try to enter and steal the food he had hoarded there. But he need not have worried about that -- the people were all gone. They had eaten every
blade of grass and every kernel of grain in the land. Some had died, while others had fled and left the bishop as the only living person in Bingen. Just as he was congratulating himself on having been clever enough to have survived the great hunger in comfort, he heard noises outside and at the doors. He rushed to the top of the tower and saw a terrible sight. All of the starving rats and mice from the entire region had smelled the food and were hurrying toward his tower.

There is an old stone tower in the German city of Bingen, and it is still pointed out to visitors as the famous Mouse Tower of the Bishop of Bingen.

**The Black Death of 1347-1351**

During the next few years, the European economy slowly improved, and agricultural and manufacturing production eventually reached pre-famine levels. This return to normalcy was suddenly ended in the year 1347 by a disaster even worse than the Great Famine.

Since the failure of Justinian's attempt to reconquer the lands of the Western Empire in 540-565, Europe had been relatively isolated, its population sparse, and intercommunication among its villages slight. It was as if the continent were divided up into a number of quarantine districts. Although many diseases were endemic (that is, they were always present), contagious diseases did not spread rapidly or easily. So the last pandemic (an epidemic that strikes literally everywhere within a short time) to strike Europe had been the one brought to the West by Justinian's armies in 547. By the 14th century, however, the revival of
commerce and trade and the growth of population had altered that situation. There was much more movement of people from place to place within Europe, and European merchants travelled far afield into many more regions from which they could bring home both profitable wares and contagious diseases. Moreover, the diet, housing, and clothing of the average men and women of Western Europe were relatively poor, and a shortage of wood for fuel had made hot water a luxury and personal hygiene substandard.

Contrary to popular belief, medieval people actually liked to wash. They particularly enjoyed soaking in hot tubs and, as late as the mid-thirteenth century, most towns and even villages had public bath houses not unlike the Japanese do today. The conversion of forest into arable land had reduced the supply of wood, however, and the bath houses began to shut down because of the expense of heating the water. They tried using coal, but decided that burning coal gave off unhealthy fumes (They were right, by the way) and abandoned the use of the stuff. By the mid-fifteenth century, only the rich could afford to bathe during the cold Winter months, and most of the population was dirty most of the time, even if they did not enjoy being so.

The Black Death seems to have arisen somewhere in Asia and was brought to Europe from the Genoese trading station of Kaffa in the Crimea (in the Black Sea). The story goes that the Mongols were besieging Kaffa when a sickness broke out among their forces and compelled them to abandon the siege. As a parting shot, the Mongol commander loaded a few of the plague victims onto his catapults and hurled them into the town. Some of the merchants left Kaffa for Constantinople as soon as the Mongols had departed, and they carried the plague with them. It spread from Constantinople along the trade routes, causing tremendous mortality along the way.
The disease was transmitted primarily by fleas and rats. The stomachs of the fleas were infected with bacteria known as *Y. Pestis*. The bacteria would block the "throat" of an infected flea so that no blood could reach its stomach, and it grew ravenous since it was starving to death. It would attempt to suck up blood from its victim, only to disgorge it back into its prey's bloodstream. The blood it injected back, however, was now mixed with *Y. Pestis*. Infected fleas infected rats in this fashion, and the other fleas infesting those rats were soon infected by their host's blood. They then spread the disease to other rats, from which other fleas were infected, and so on. As their rodent hosts died out, the fleas migrated to the bodies of humans and infected them in the same fashion as they had the rats, and so the plague spread.

The disease appeared in three forms: bubonic [infection of the lymph system -- 60% fatal], pneumonic [respiratory infection -- about 100% fatal], and septicaemic [infection of the blood and probably 100% fatal].

The plague lasted in each area only about a year, but a third of a district's population would die during that period. People tried to protect themselves by carrying little bags filled with crushed herbs and flowers over their noses, but to little effect. Those individuals infected with bubonic would experience great swellings ("bubos" in the Latin of the times) of their lymph glands and take to their beds. Those with septicaemic would die quickly, before any obvious symptoms had appeared. Those with respiratory also died quickly, but not before developing evident symptoms: a sudden fever that turned the face a dark rose color, a sudden attack of sneezing, followed by coughing, coughing up blood, and death.

It is a popular (although incorrect) belief that this latter sequence is recalled in a children's game-song that most people know and have both played and sung:

Source URL: http://www.vlib.us/medieval/lectures/black_death.html
Saylor URL: http://www.saylor.org.courses/engl201

© Lynn Harry Nelson (http://www.vlib.us/medieval/lectures/)
Used by permission.
Ring around the rosie,
A pocketful of posie,
Ashes, ashes
All fall down!

According to this conception, the *ring* mentioned in the verse is a circular dance, and the plague was often portrayed as the *danse macabre*, in which a half-decomposed corpse was shown pulling an apparently healthy young man or woman into a ring of dancers that included man and women from all stations and dignities of life as well as corpses and skeletons. The *rosie* is believed to represent the victim with his or her face suffused with blood, and the *posie* is the supposedly prophylactic bag of herbs and flowers. *Ashes, ashes* is the sound of sneezing, and *all fall down!* is the signal to reenact the death which came so often in those times.

*Some Consequences of the Plague*

The disease finally played out in Scandinavia in about 1351 [see Ingmar Bergman's film *The Seventh Seal*], but another wave of the disease came in 1365 and several times after that until -- for some unknown reason -- the Black Death weakened and was replaced by waves of typhoid fever, typhus, or cholera. Europe continued to experience regular waves of such mortality until the mid-19th century. Although bubonic plague is still endemic in many areas, including New Mexico in the American Southwest, it does not spread as did the Black Death of 1347-1351.
The effects of that plague and its successors on the men and women of medieval Europe were profound: new attitudes toward death, the value of life, and of one's self. It kindled a growth of class conflict, a loss of respect for the Church, and the emergence of a new pietism (personal spirituality) that profoundly altered European attitudes toward religion. Still another effect, however, was to kindle a new cultural vigor in Europe, one in which the national languages, rather than Latin, were the vehicle of expression. An example of this movement was Giovanni Boccaccio's *The Decameron*, a collection of tales written in 1350 and set in a country house where a group of noble young men and women of Florence have fled to escape the plague raging in the city.

*A Short Conclusion*

These were natural disasters, but they were made all the worse by the inability of the directing elements of society, the princes and clergy, to offer any leadership during these crises. In the next few lectures we will examine the reasons for their failure to do so.

*And Innocent Merriment*

It was once the custom to follow every drama with a farce or ballet. I suppose that the theory was that the emotions of the audience were so exhausted by the passions that had been enacted, that they (the audience, not the emotions) needed a bit of good clean fun to restore the balance of their humors (I really should tell you about humors sometime). Following this venerable tradition, The Management now offers you a bit of doggerel.

"A sickly season," the merchant said,
"The town I left was filled with dead, 
and everywhere these queer red flies 
crawled upon the corpses' eyes, 
eating them away."

"Fair make you sick," the merchant said, "They crawled upon the wine 
and bread. Pale priests with oil and books, bulging eyes and crazy looks, 
dropping like the flies."
"I had to laugh," the merchant said, "The doctors purged, and dosed, and 
bled; "And proved through solemn disputation "The cause lay in some 
constellation. "Then they began to die."
"First they sneezed," the merchant said, "And then they turned the 
brightest red, Begged for water, then fell back. With bulging eyes and 
face turned black, they waited for the flies."
"I came away," the merchant said, "You can't do business with the dead. 
"So I've come here to ply my trade. "You'll find this to be a fine 
brocade..."
And then he sneezed.