

Book Reviews

PLAGUE OF DESTRUCTION

The Black Death

By Philip Ziegler. Pp. 319. (Collins: London, January 1969.) 36s.

THIS is an interesting and thorough account of the first known pandemic of plague which occurred between 1345 and 1350. The disease began in Manchuria, and by the end of 1346 it was widely known in the major European seaports that a plague of unparalleled fury was raging in the east. It reached first the Mediterranean countries along the sea routes used by galleys from the Black Sea ports, by October 1347 it had arrived in Sicily (in twelve Genoese galleys), and it then passed to other Mediterranean ports. Thence it spread to the mainland of Europe, and it eventually gained access to England through the Dorset ports in the summer of 1348 and spread throughout Britain with unabated fury, killing, it is estimated, about one-third of the population.

One of the minor mysteries which still remains concerns the genesis of the name—the Black Death. It was formerly believed that this name arose because of the subcutaneous haemorrhages seen on people dying of septicaemic plague. It would seem, however, that the term the Black Death was not used at the time of the epidemic, and was not generally heard until the eighteenth century. Today, the causal organism, the *Pasteurella pestis*, is known and the mode of spread from rat to man, usually through the bite of the infected rat flea, has been elucidated. But in the middle ages, plague was not only all-destroying, it was totally incomprehensible.

It was believed that the disease occurred in persons who had inhaled a corrupted atmosphere—the miasmatic theory of contagion expounded by Galen which was destined to be accepted for hundreds of years. It was also alleged by the Church that the Black Death was a punishment by the Almighty for man's wickedness, sensuality and lack of contrition. The Genoese galleys which brought the Black Death to Messina in 1347 were alleged to be accursed and fleeing from the wrath of God, in the shape of a tempest, because they had helped the Saracens against the Christians. It is indeed surprising that no mediaeval chronicler mentions the undue mortality in rats either in galleys or on shore, which must have been present, yet this observation was not made until the latter part of the nineteenth century.

Chapter thirteen is the most fascinating part of the book because it gives an imaginary reconstruction of the plague in a mediaeval English village. The story is linked to the experiences of Roger Tyler, one of the more prosperous villeins in the village of Blakewater. The first victim was the vicar early in 1349, then old and young alike developed the disease, hardly a family in the village being spared. Out of a population of about 150 in 30 family units there were 38 deaths and only 3 recoveries. This mortality was lighter than in many other communities; nevertheless, it was bound to have a considerable effect on village life. The author suggests that it led to larger parcels of land falling into the possession of certain individuals, and that it also acted as a sharp stimulus towards rapid and lasting commutation of manorial services. The Black Death had not only social and economic consequences, but also

considerable effects on education, agriculture and architecture. The high mortality among clerics eliminated a vast number of learned men on whom the country depended not only for its religious guidance but also for a fair measure of its local government. There was also a high incidence of the disease and deaths among doctors, but in the fourteenth century they were fewer and of less importance in the community. As a result of the need to repair these losses, however, several new colleges came into existence at Oxford and Cambridge.

Gradually, the infection abated and the slow process of social and economic recovery started through Europe. Although other visitations of plague were to occur over the next five hundred years, no later outbreak had as far-reaching consequences as the Black Death described in this book. Yet, medically, out of it came virtually no advance in knowledge. Indeed, the only medical innovation was the institution of quarantine; namely, the detaining of ships with their passengers and cargoes in isolation for a period of 40 days. The choice of 40 days is alleged to be based by analogy to Christ's suffering in the wilderness. Quarantine failed in mediaeval Venice and has consistently failed to control the spread of infection through the centuries and up to the present day. It is founded on the false premise that incarceration of voyagers and cargoes will prevent spread of infection. But the *Rattus rattus* and his flea *Xenopsylla cheopsis* can evade any cordon sanitaire. Yet quarantine still figures prominently in the thinking of some medical men concerned with the international spread of disease even to this day. So we should not judge our mediaeval ancestors too harshly for not noticing that rats also died of the Black Death. The reading of history, when it is presented as it is in this book, is not only instructive but also a pleasure.

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PROPAGANDA IN A GOOD CAUSE

Famine on the Wind

Plant Diseases and Human History. By G. L. Carefoot and E. R. Sprott. Pp. 222. (Angus and Robertson: London, January 1969.) 30s.

MAN'S concern for his own health and that of his animals and plants is a descending series. As a result both human and veterinary medicine have emotive public images. "Plant health" on the other hand attracts little general interest, and its maintenance, in most countries, has not even attained a unity of approach. It is commonly split into the control of pests, diseases and weeds, the first of which usually takes precedence because of the spectacular depredations of insects. These divisions are not, however, exclusive, and it is customary for plant pathogenic nematodes to be included in plant pathology (or phyto-pathology) along with fungi, bacteria, viruses and the non-parasitic factors which are responsible for disease in plants.

In *Famine on the Wind* the effects of plant disease are dramatized and the losses they induce are set against the background of the rapidly increasing world population. Losses of food crops caused by disease are certainly impressive. The authors claim that fungus diseases alone annually destroy enough food to provide 2,500 calories per day for 300 million people. They also claim that disease is responsible for an overall 20 per cent loss of food crops. Plant disease losses are notoriously difficult to assess with accuracy and this last claim is probably on the high side. H. H. Cramer, from his recent comprehensive study (*Pflanzenschutz-Nachr. Bayer*, 20 (1); 1967), concluded that plant diseases cause a loss of 12 per cent of the annual world crop production, insects 14 per cent, and weed infestation 9 per cent—the total loss exceeding 1,400 million tons. Losses on this scale must not be tolerated—particularly as many are preventable.