

Week 3

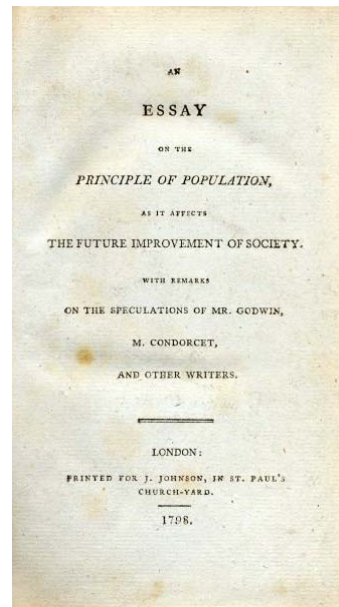
Demographic Theory, Crisis Mortality, and the Black Death

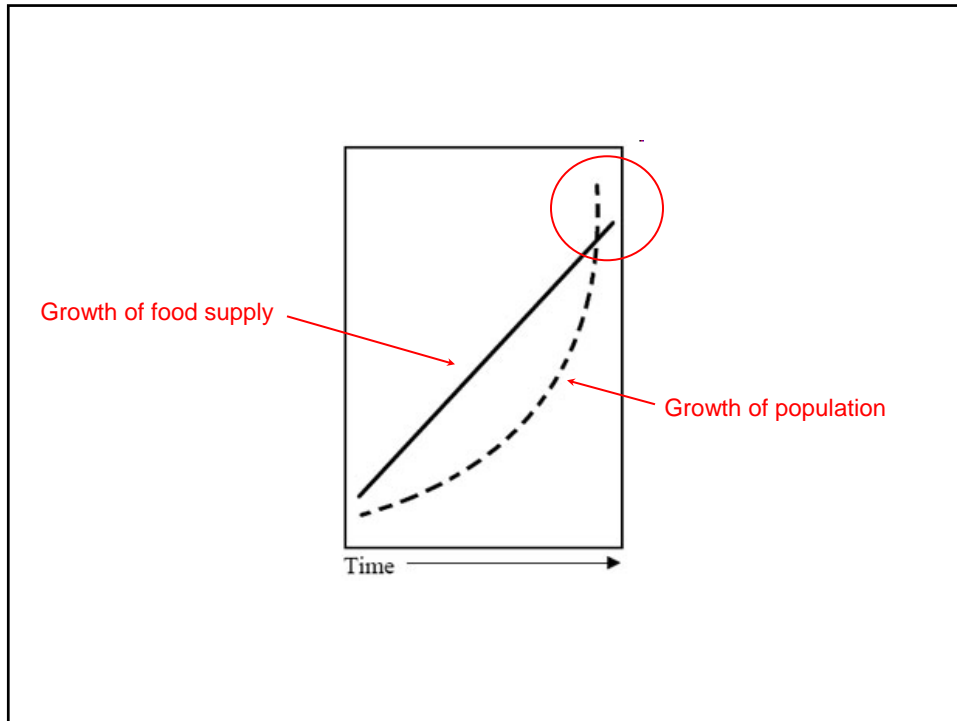
Outline

- Theory
 - Malthus
 - Boserup
- Life before the Industrial Revolution
- Mortality Crises
 - Plague of Justinian
 - Black Death



Thomas Malthus (1766-1834)





Main Points of the 1st Edition

- People need food to survive.
- People have a sex drive so strong that — unchecked — it will lead to a “geometrical” rate of population increase, e.g., 1, 2, 4, 8, 16, 32.
- People can only increase the output of food at an “arithmetical” rate of growth, i.e. 1, 2, 3, 4, 5, 6.
- These two forces — the force to procreate and the force to provide subsistence for the human output—must be kept in equilibrium.
- They are kept in equilibrium by a variety of checks—mainly war, famine, and disease.

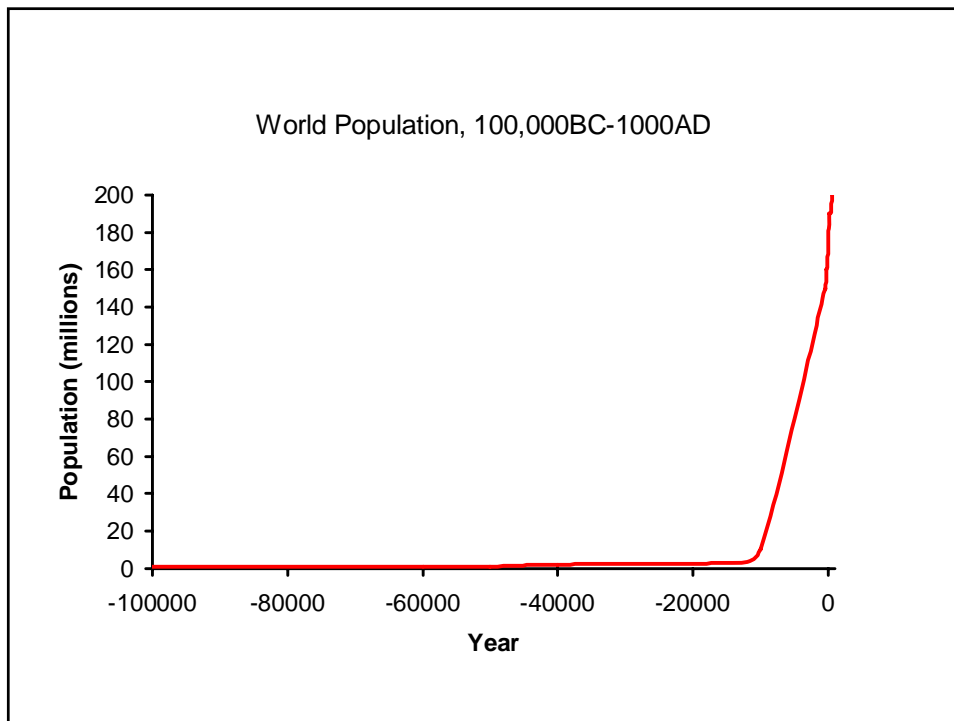
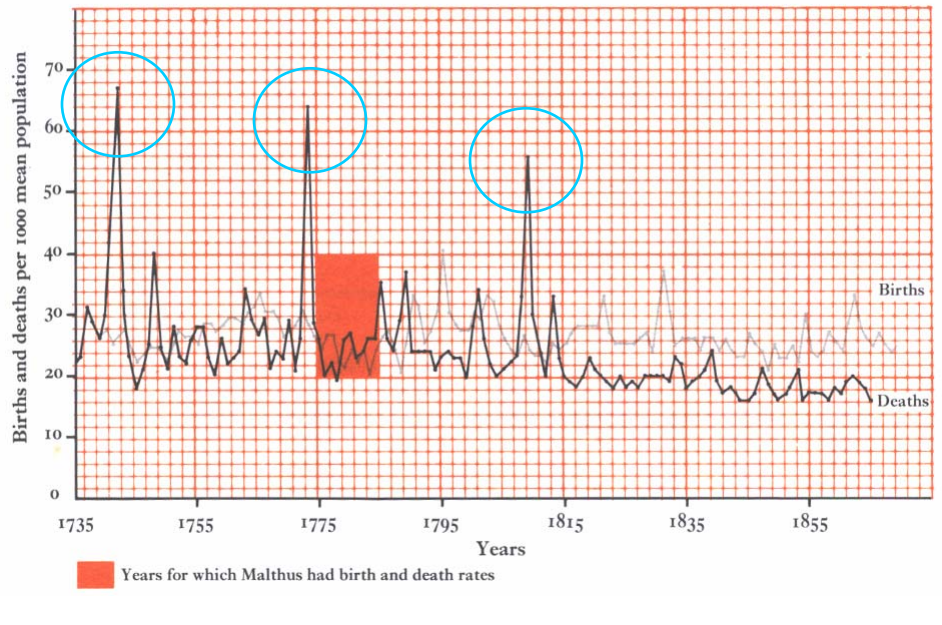
Main Points of the 6th Edition

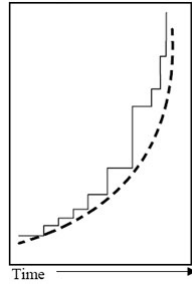
- Population is necessarily limited by the means of subsistence.
- Population invariably increases where the means of subsistence increases unless prevented by some very powerful checks
- These checks fall into two general categories: *positive checks* and *preventive checks*

Positive and Preventive Checks

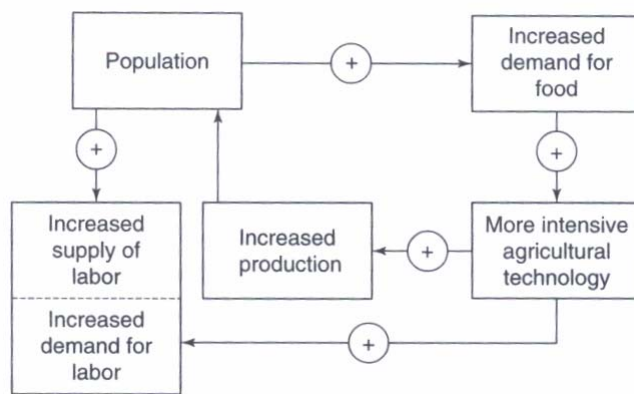
- *Positive checks:*
 - war, famine, or disease
- *Preventive checks:*
 - Moral restraint: delayed marriage, celibacy
 - Vice: contraception, abortion, infanticide

Figure 2 Births and deaths per 1000 mean population in the Norwegian diocese of Akerhus, 1735-1865.
Source: Michael Drake (1969) *Population and Society in Norway 1735-1865*, Cambridge University Press

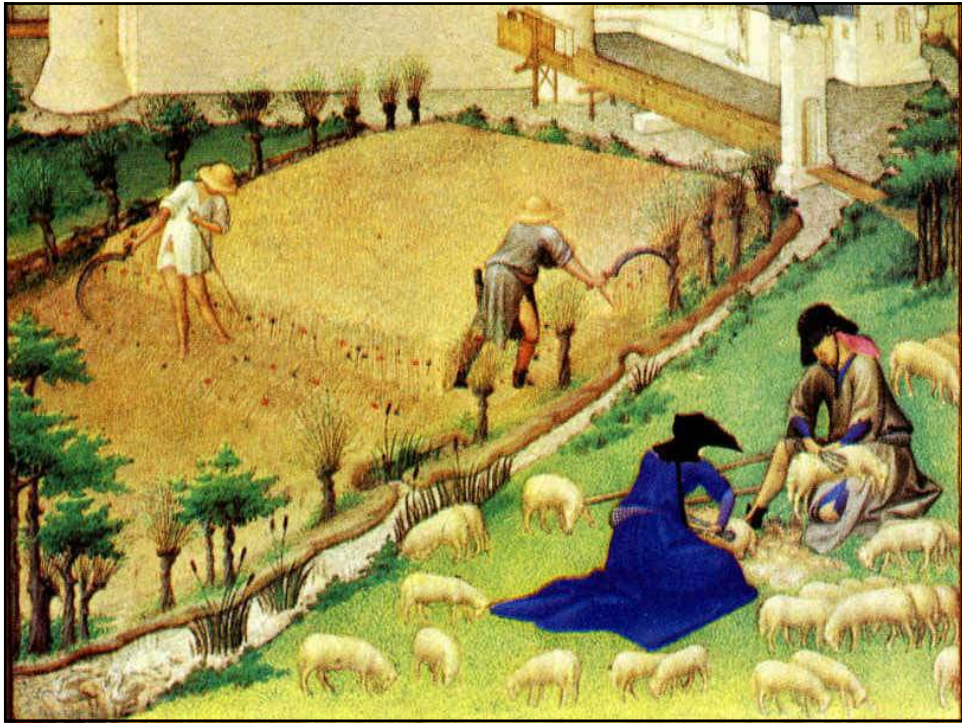




Ester Böserup (1910-1999)



Böserup's model







Practica Chirurgiae by Roger Frugard of Salerno (c.1140-1195) illustrating surgery for hemorrhoids, nasal polyps and corneal opacity.



St. Bartholomew's Day Massacre of Heretics
France, 1572



Fig. 340.—The Estrepado, or Question Extraordinary.—Fac simile of a Woodcut in the Work of J. Millouin, "Praxis Criminalis Persequenda," folio, Paris, 1541.

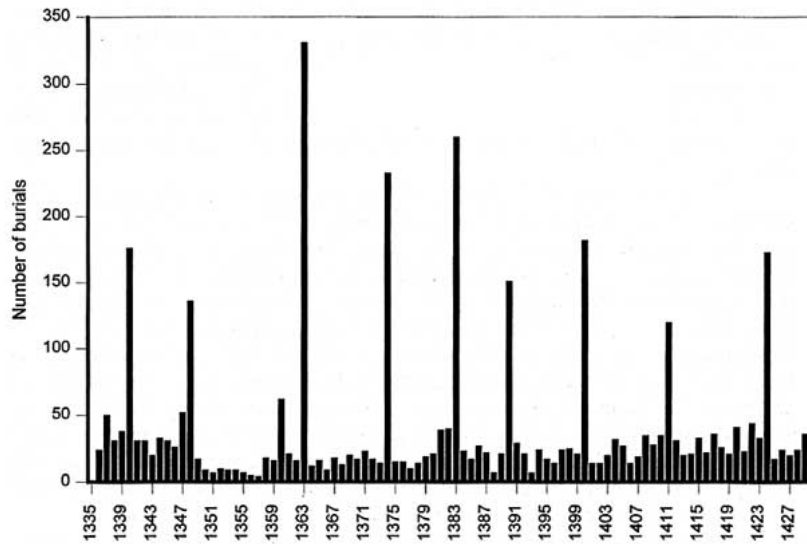


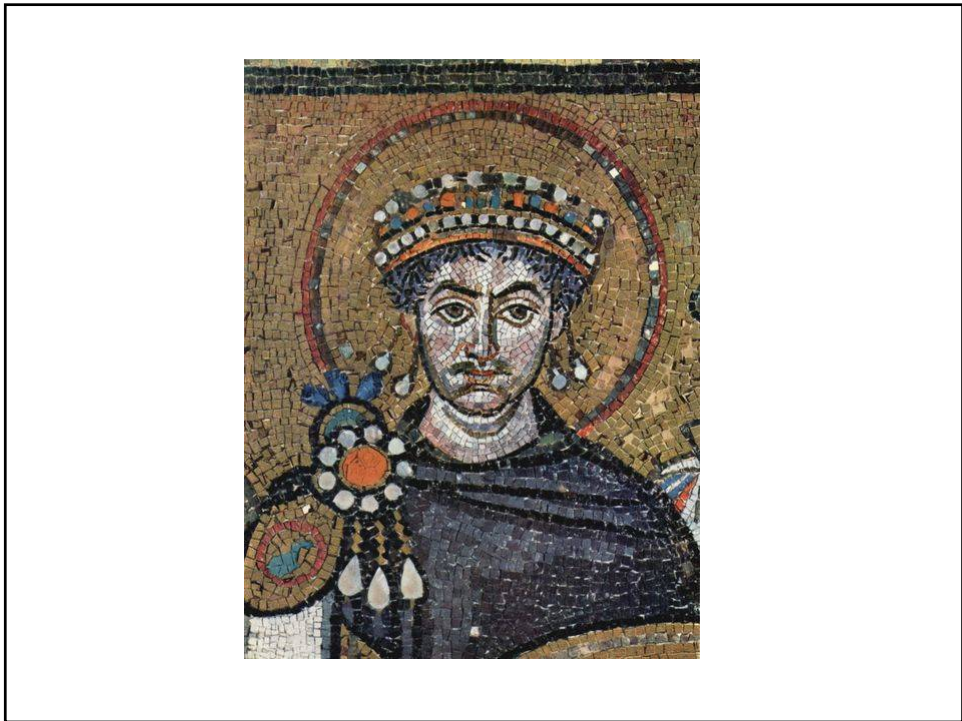
Fig. 341.—The Water Torture.—Fac-simile of a Woodcut in J. Damhoudère's "Praxis Rerum Criminalium;" in 4to, Antwerp, 1556.

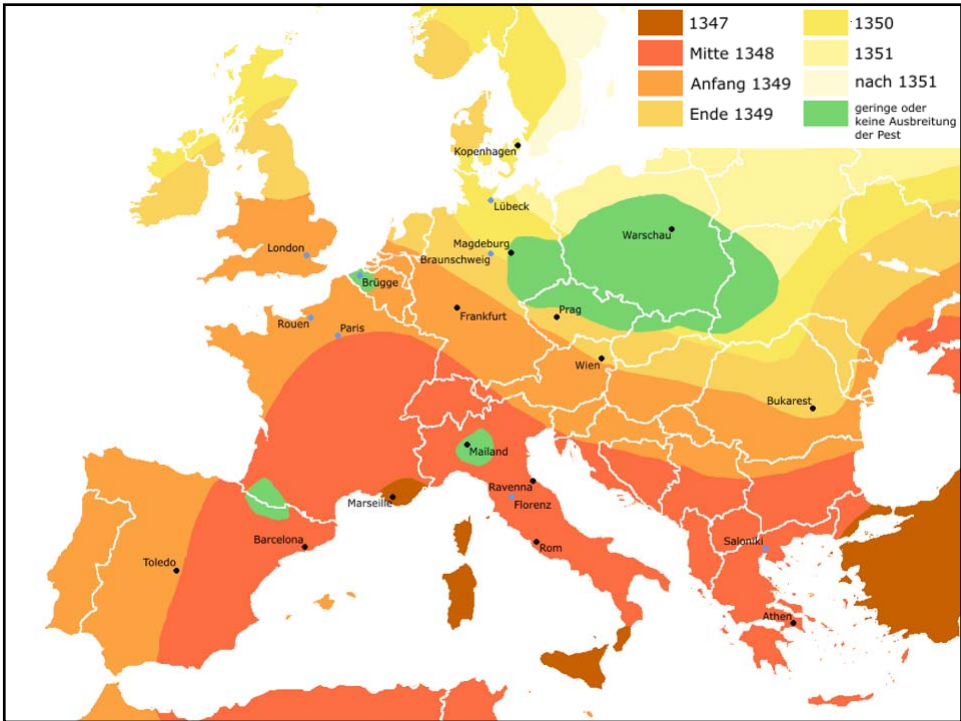
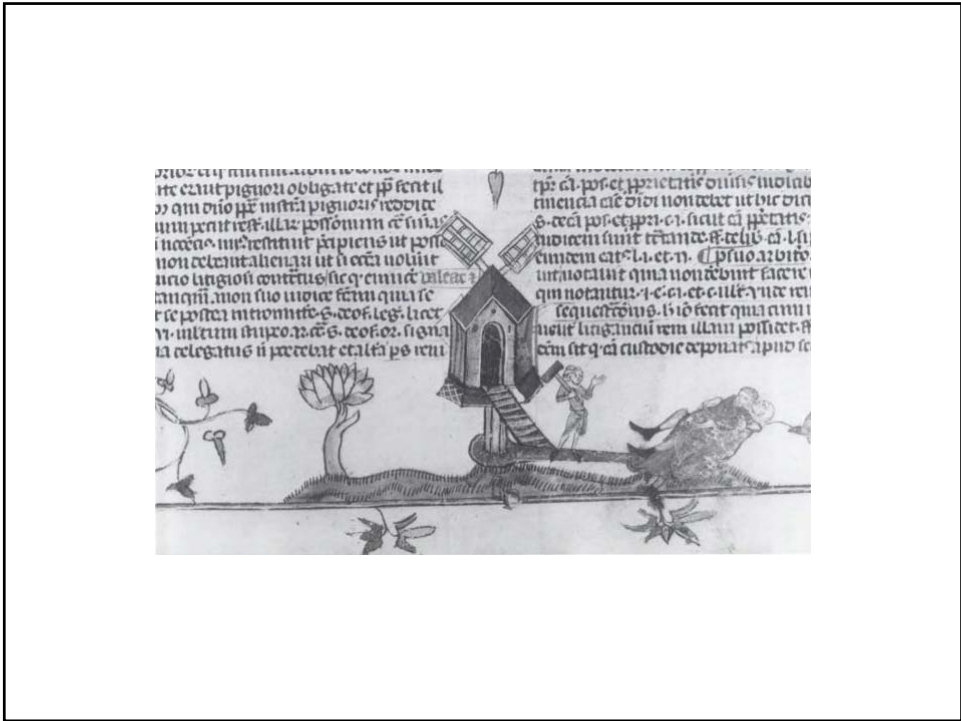


The Beggars 1568

Burials, 1335-1430
Among the laity at San Domenico, Siena









Citizens of Tournai bury plague victims, 1348



London, ca. 1350

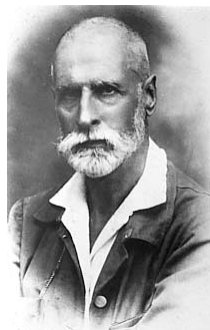


Black Death illustrated in the Toggenburg Bible (1411)





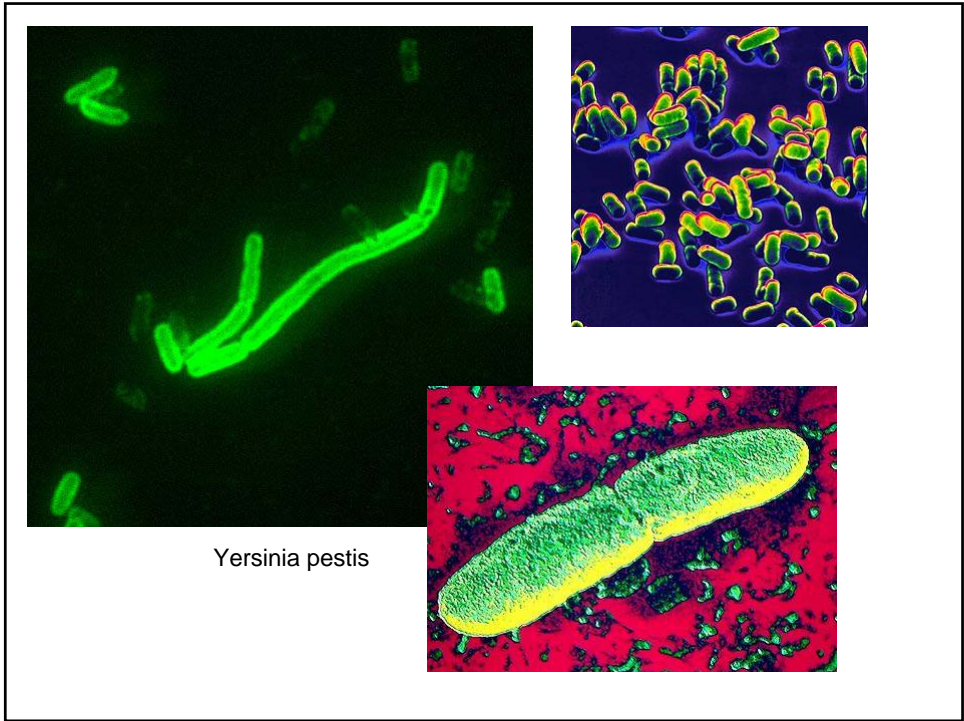
Physician treating a plague patient; from a 14th-century Flemish illumination.
The Granger Collection, New York

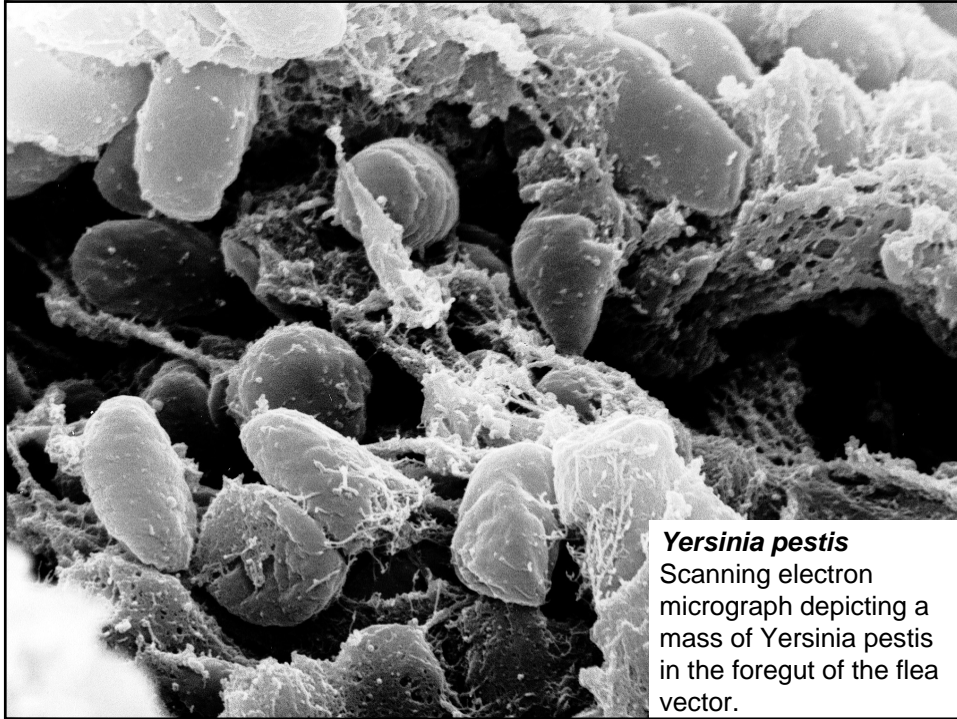


Alexandre Emile Jean Yersin
(1863-1943)



Shibasaburo Kitasato
(1853-1931)





Yersinia pestis
Scanning electron micrograph depicting a mass of *Yersinia pestis* in the foregut of the flea vector.





Royal Mint Site, London, 1348
1 in 6 bone samples have *Yersinia pestis*



Italian Miniature, ca. 1400
Pope Gregory leading procession
during plague



Plague, Germany, ca. 1497



Doctor Schnabel of Rome, 1656




MEMENTO MORI

LONDON'S Dreadful Visitation:
Or, A COLLECTION of All the
Bills of Mortality
For this Present Year:
Beginning the 27th of December 1664, and
ending the 15th of December following:
As also, The GENERAL or whole years BILL:
According to the Report made to the
KING'S Most Excellent Majesty,
By the Company of Parish-Clerks of London. &c

LONDON:
Printed and are to be sold by E. Cotes living in Aldersgate-street.
Printer to the said Company 1665.

The Diseases and Casualties this Week.

 <p>A Botive — 4 Aged — 45 Bleeding — 1 Broken legge — 1 Broke her skull by a fall in the street at St. Mary VVool church — 1 Childbed — 28 Chriſomes — 9 Consumption — 126 Convulsion — 89 Cough — 1 Dropne — 53 Feaver — 348 Flox and Small-pox — 11 Flux — 1 Frighted — 2 Govt — 1 Grief — 3 Gripping in the Guts — 79 Head-mould-ſtook — 1 Jaundies — 7</p>	<p>Impoſthime — 8 Infans — 22 Kinglevil — 4 Lethargy — 1 Livergrowne — 1 Meagcome — 1 Pallie — 1 Plague — 4237 Purples — 2 Quinſie — 5 Rickets — 23 Riting of the Lights — 18 Rupture — 1 Scurvy — 3 Shingles — 1 Spotted Feaver — 166 Stilborn — 4 Stone — 2 Stopping of the ſtomach — 17 Strangury — 3 Suddenly — 2 Surſei — 74 Teeth — 111 Thruſh — 6 Tiſſick — 9 Ulcer — 1 Vomiting — 10 Winde — 4 Wormes — 20</p>
<p>Christened } Males — 90 } Females — 81 } In all — 171</p>	<p>Buried } Males — 2777 } Females — 2791 } In all — 5568</p>
<p>Increased in the Burials this Week — 249 Parishes clear of the Plague — 27 Parishes Infected — 103</p>	

*The Affixe of Bread ſet forth by Order of the Lord Mayor and Courts of Aldermen,
A penny Wheaten Loaf to contain Nine Ounces and a half, and three
half-penny White Loaves the like weight.*