



# Famine and disease in the 14<sup>th</sup> century

nec scimus  
et uicibus misericordies que  
vident et que audiunt  
per uicibus edocemur  
si nos bene recordemur. que sunt

# Pestis, is (f)

- A deadly infectious or contagious disease
- A plague, pest or pestilence
- A noxious atmosphere, unhealthy weather
  
- Can also mean
  - Death
  - Destruction
  - Ruin

**Pandemic =  
pan demos =  
affecting all  
people**

Modern pandemic disease:

- Wide geographic extension
- Disease movement
- High attack rates and explosiveness
- Little population immunity
- Infectiousness
- Contagiousness
- Severity

# THE GREAT TRANSITION

Climate, Disease and Society  
in the Late-Medieval World



BRUCE M. S. CAMPBELL

## 3 Stages of the Great Transition

# Stage One: 1260s-1330s

## “precarious balance”

- Economic vulnerability
- Increasing climatic instability
- Series of famines in the early decades of the 14<sup>th</sup> century

## **Stage Two: 1340s to 1370s**

### **“profound and irreversible changes”**

- Cooling temperatures (colder and wetter)
- Unpredictable weather patterns
- Expanded famine
- Widespread disease

## **Stage Three: 1370s-1470s**

### **“the long downturn”**

- Economic and demographic contraction (initially)
- THEN economic and demographic renewal (at the end)

# In today's class...

- Focus on Stage 2: 1330s-1370s
- Geographic focus: largely Western Europe
- Relationship between climate change, famine, and disease
- Impact of the pandemic on medieval European society



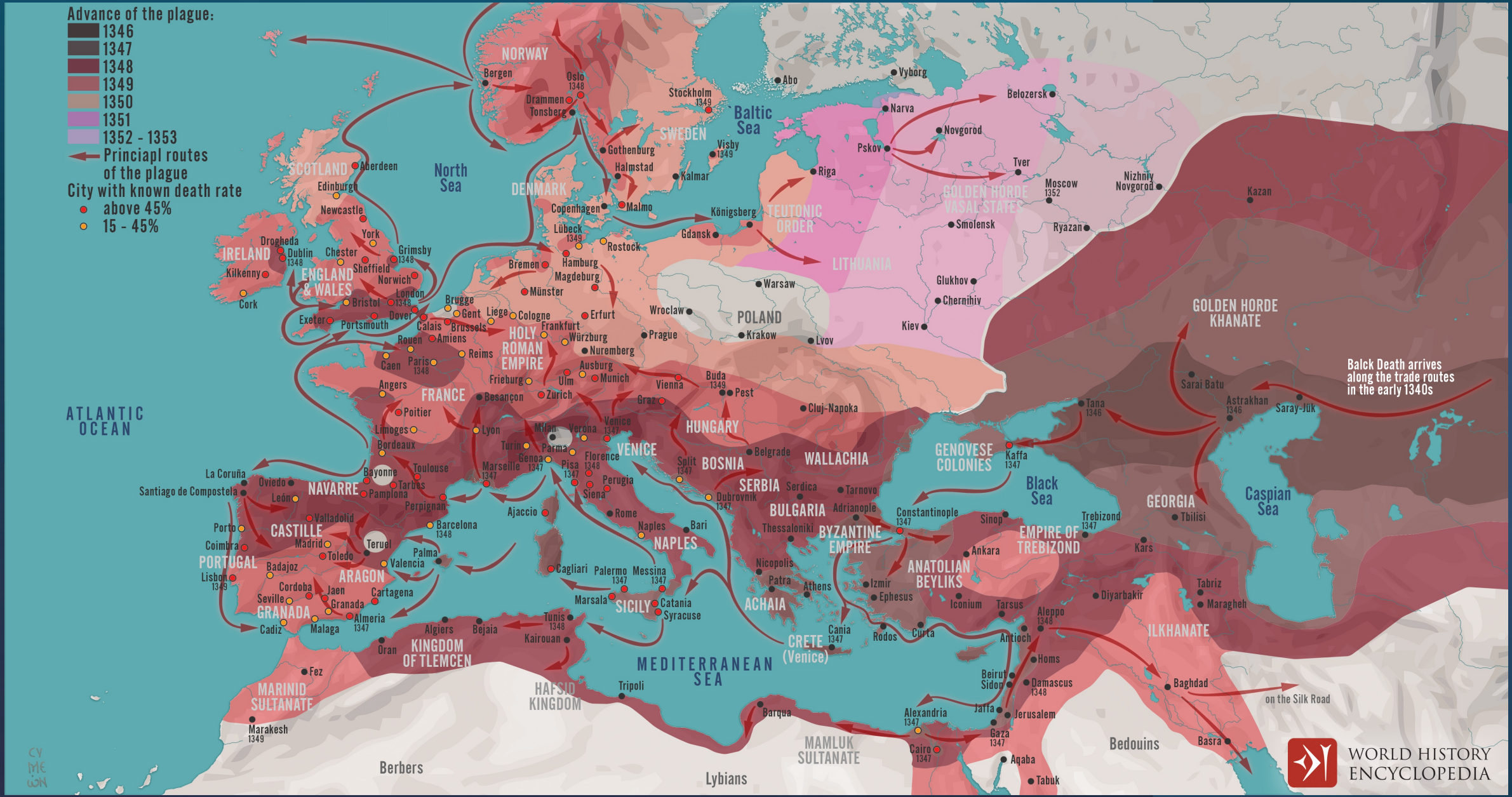
Advance of the plague:

- 1346
- 1347
- 1348
- 1349
- 1350
- 1351
- 1352 - 1353

Principals routes of the plague

City with known death rate

- above 45%
- 15 - 45%



# Four Horsemen of the Apocalypse

- Red horse: War
- Black horse: Famine/Pestilence
- Pale horse: Death
- White horse: Conquest



**E**t vidi equos in visione  
et qui sedebant super eos.  
habebant loricas igneas  
et iacinctivas et sulphu-  
rum. Et capita eorum erant tanquam  
capita leonum. Et de ore ipsorum proce-  
dit ignis et fumus et sulphur. Ab his  
tribus plagis infecta est terra pars ho-  
minum. Quartus enim equorum i ore

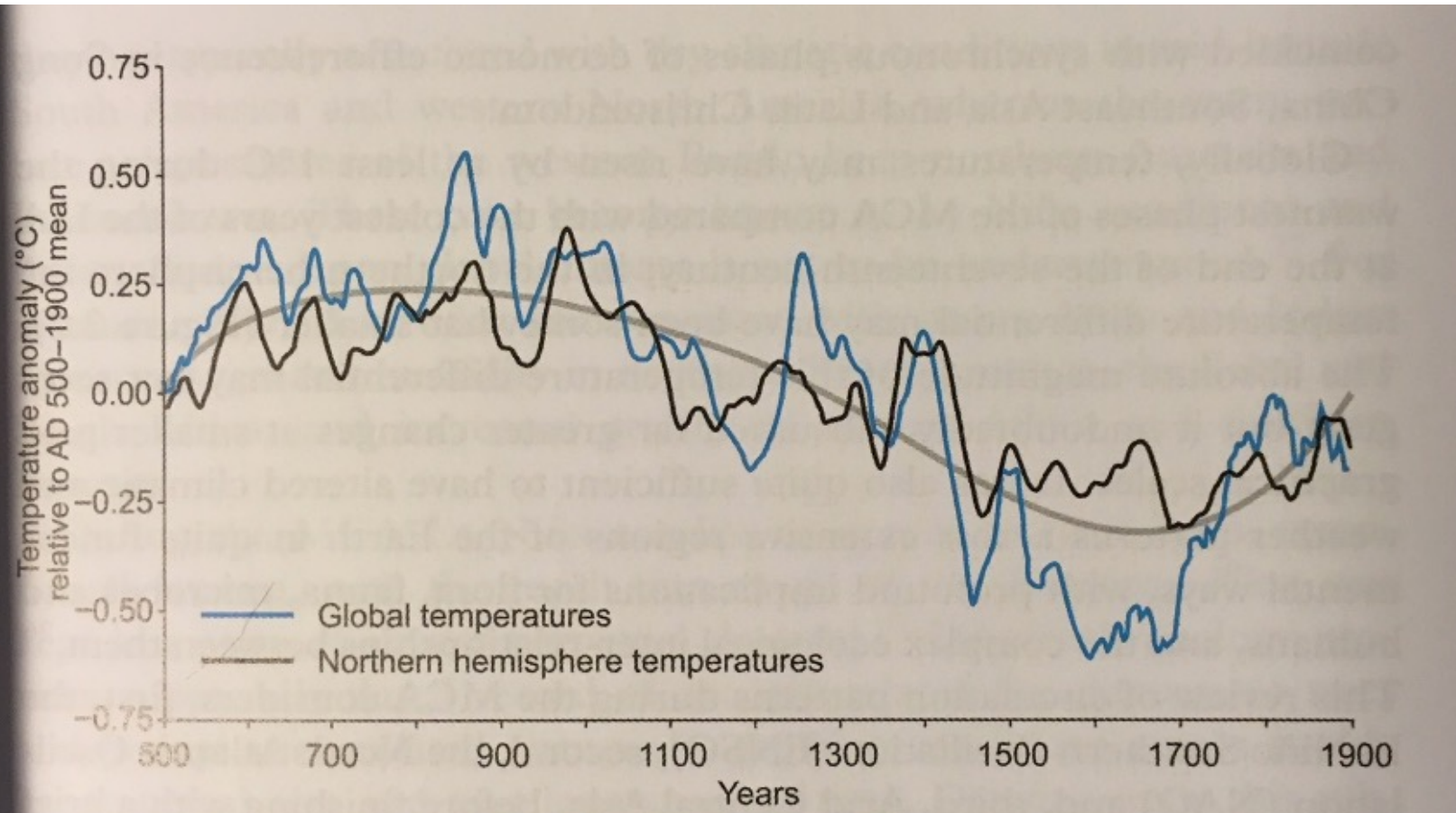
argentea et creta et lapidea et lignea.  
que neque videre neque ambulare.  
et non egerunt penitentiam ab homi-  
nibus suis et auerentibus suis et a for-  
nicatione sua et a fratribus suis. sub  
auditur perierunt.

**T**ertius pars que infecta est salua  
facta est. rest electi. ex quibus multi p  
xii nomine infecti sunt. reliqui li



# Environment and Climate Change

Image: from Dante's *Divine Comedy* (late 14<sup>th</sup> c.)



**Figure 2.2** Reconstructed global and northern hemisphere temperature anomalies, AD 500–1900  
*Sources:* global – Loehle and McCulloch (2008); northern hemisphere – Mann and others (2008)

# Global Cooling

# Destabilization in the Climate (1340s→)

1342: torrential rain in summer--> rise in river levels→

soil erosion



Storm surges → coastal flooding



Ruined harvests (1346-47; 1349-51)

ALSO:

Widespread  
famine from  
1315-22 from  
social  
exhaustion and  
overfarming

“For some time the seasons have not succeeded each other in the proper way. Last winter (1347/8) was not as cold as it should have been, with a great deal of rain; the spring windy and latterly wet. Summer was late, not as hot as it should have been and extremely wet—the weather very changeable from day to day, and hour to hour; the air often troubled, and then still again, look as if it was going to rain and then not doing so. Autumn too was very rainy and misty.”

--University of Paris, Faculty of Medicine, October 1348

# Unsettled weather

- July 1342 Wurzburg, Germany
  - Main river to highest levels ever
- Summer 1342 Scotland
  - Driest in 250 years





# Disease: the Black Death

Image: 1349, Tournai, earliest depiction of the plague



**Giovanni Boccaccio, *The Decameron* (1350)**

**Ibn Battuta, *Travels* (before 1368)**

- What perspective on the origin and spread of the Black Death do we get from these sources?
- What can they tell us about people's attempts to respond to the plague?



1346-Arrives in Europe




1347/8-1353-First  
Outbreak

1360-3; 1369; 1374-75;  
1382-83; 1394-95-  
Subsquent Outbreaks

Continues for next 350  
years

- Major outbreak  
1660s



 Approximate border between the Principality of Kiev and the Golden Horde - passage prohibited for Christians.  
 Land trade routes  
 Maritime trade routes

“The Demographic Shadow cast by the Black Death was therefore dark and long.”

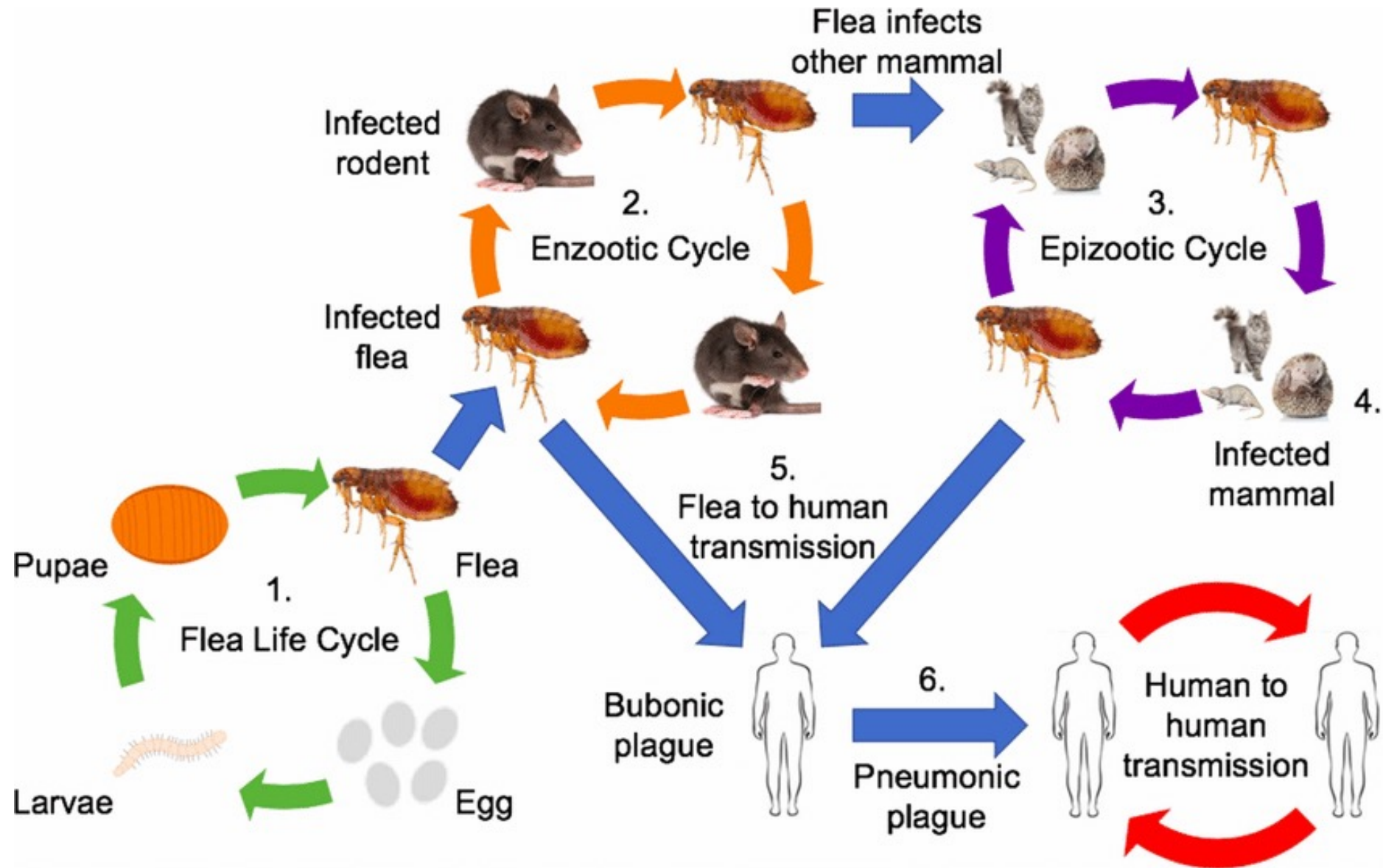
--Bruce Campbell, *The Great Transition*

# Yersinia Pestis

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- 2010: dental pulp of skeletons from Italy, France, Germany, the Netherlands, and England
- Bubonic plague—attack on the lymphatic system (bubos)
- Same disease as in China in 1330s





# Impact and Consequences





Battle of Meaux, Jacquerie in Froissart's *Chronicles* (1358)

## Economic and Social

Freezing of wages

Peasant revolts:

- France: Jacquerie in 1358
- England: Wat Tyler Rebellion 1381

## Significant Contraction of the Economy



# Medieval Plague doctor?

- Masks to hold herbs and perfumes
- Protect from “corrupt” air
- First mention of mask → 17<sup>th</sup> century France
- This image from 1656