

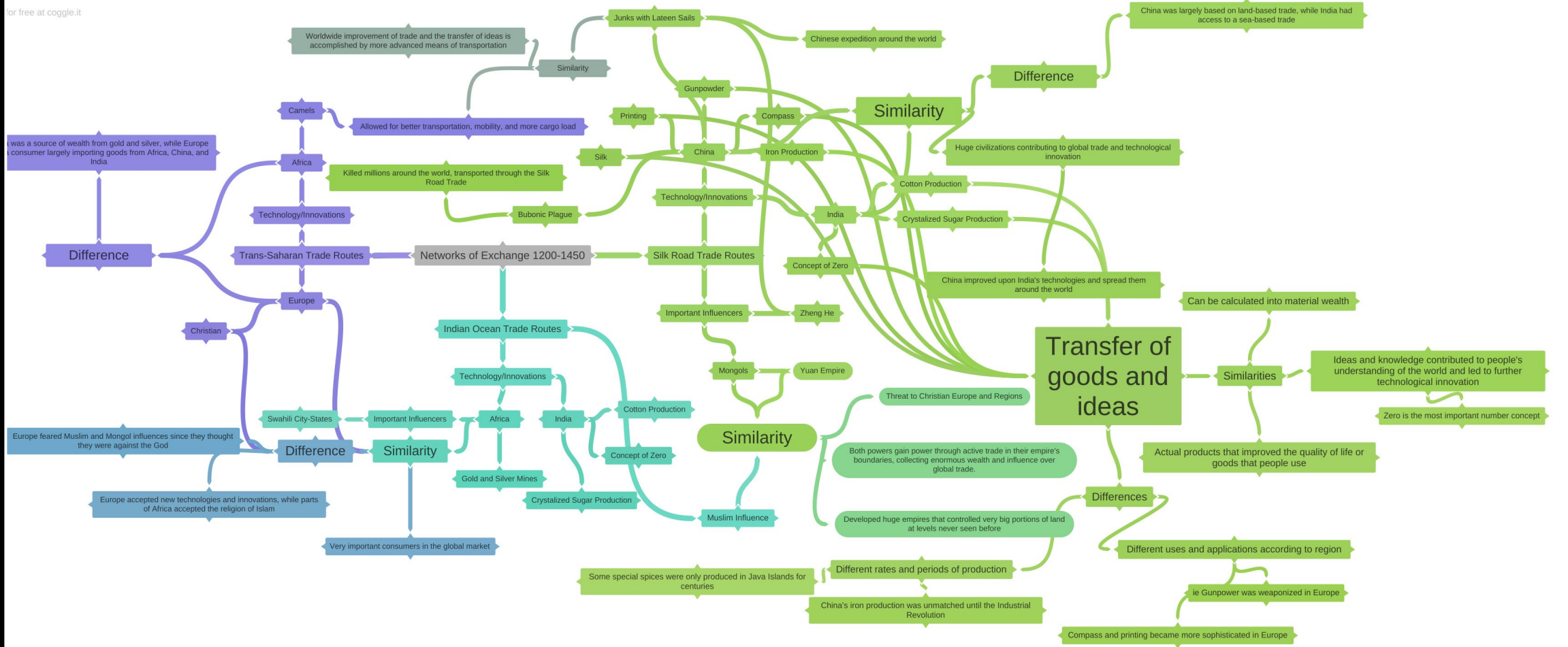
A medieval manuscript illustration depicting a king on a horse, surrounded by attendants and banners. The king is seated on a horse, wearing a green tunic and a white sash. He is holding a golden scepter. A large, ornate golden canopy covers the horse and the king. Several attendants are visible, some holding banners and others holding staffs. The scene is set against a background of a light-colored, textured surface, possibly a parchment or a wall. The overall style is characteristic of medieval manuscript illumination.

Networks

An Introduction



Networks of Interaction



Networks of Interaction

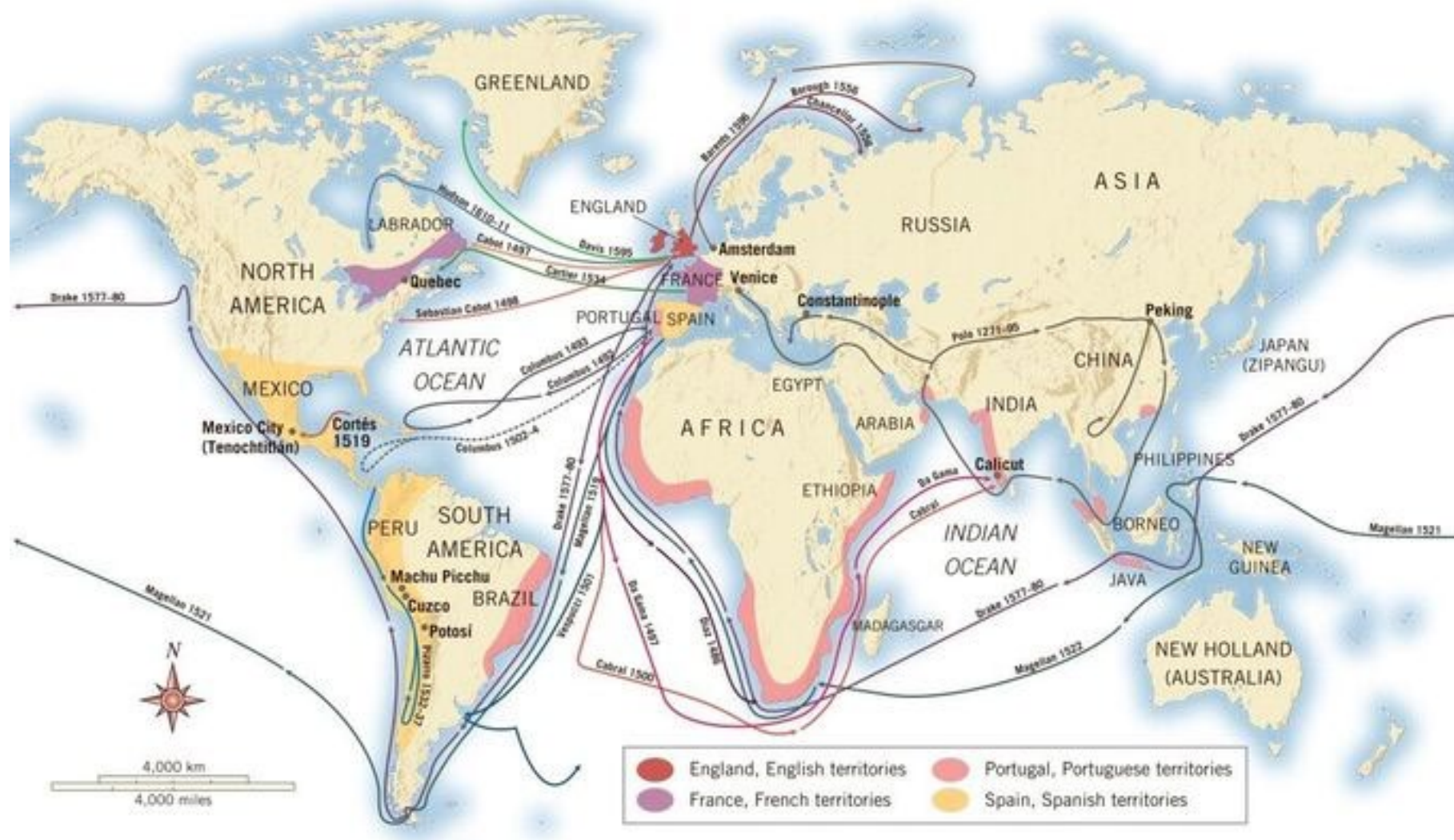


“Old World” Networks – Trade Networks

- Arab trade routes
- Chinese trade routes
- Spanish trade routes
- British control
- Spanish control
- British trade routes
- Portuguese trade routes
- Dutch trade routes
- Portuguese control
- Dutch control

Technologies







The London Gazette

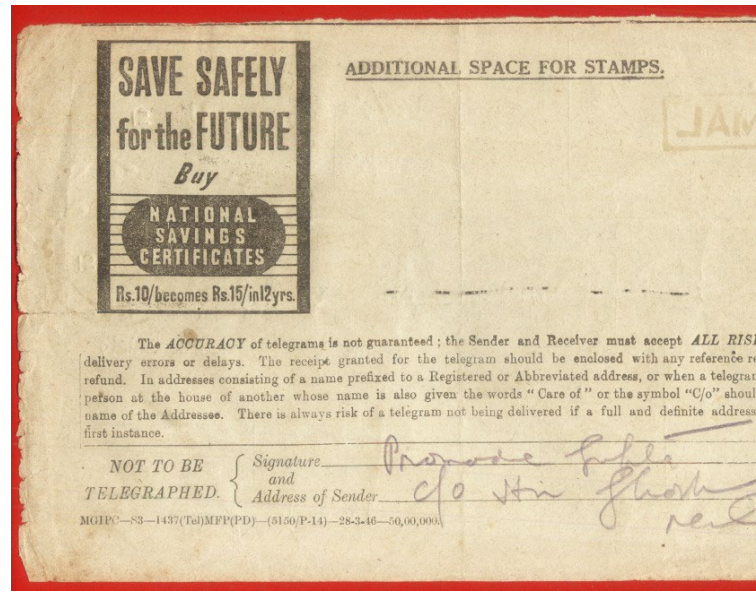
Published by Authority.

From Thursday, August 30. to Monday, Septemb. 3. 1666.

The Cornet in Guernsey, August 27.

VE have here a report of the arrival of the French Fleet at Rochelle, but as yet know nothing of their design: if it should lead them this way, our people having ended their harvest, will want

male, to complement the Empress, but they she will visit the *Madonna* at *Savona*, when preparations for her entertainment upon their *Paris, Aug. 27.* It was strongly reported repeating the Interdiction of the Imperial factories out of the *Low-Countries*, a great nation is framing for the prohibiting the kinds of Commodities into *France* out of *Vinces*; and that the *Carts* and *Waggons* were before the *Gates of Peronne*, and other *Towns* were turned back and forced to march to the





Black Death and Mongols Thematic Map



LEGEND

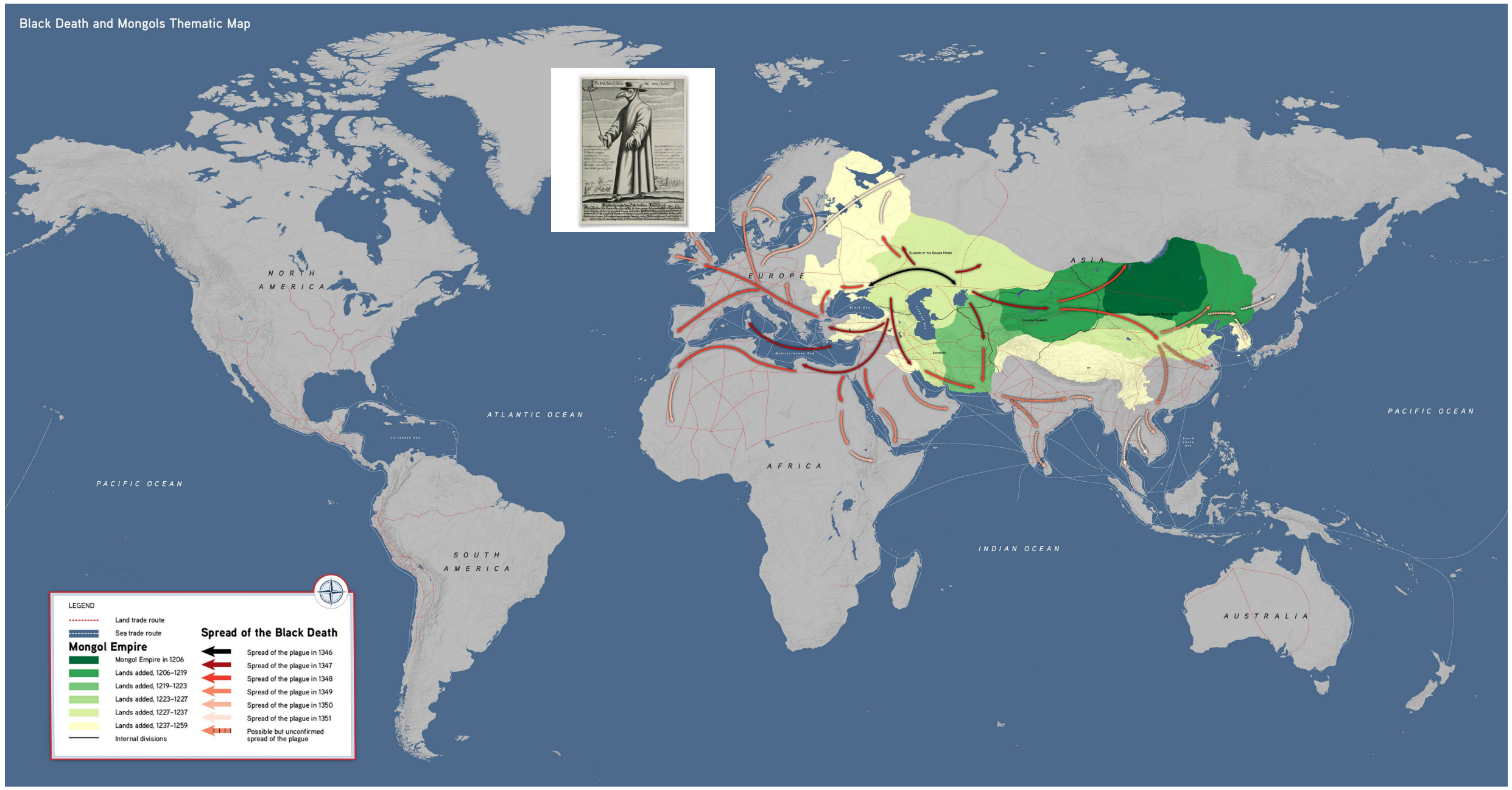
--- Land trade route
 --- Sea trade route

Mongol Empire

- █ Mongol Empire in 1206
- █ Lands added, 1206–1219
- █ Lands added, 1219–1223
- █ Lands added, 1223–1227
- █ Lands added, 1227–1237
- █ Lands added, 1237–1259
- Internal divisions

Spread of the Black Death

- ← Spread of the plague in 1346
- ← Spread of the plague in 1347
- ← Spread of the plague in 1348
- ← Spread of the plague in 1349
- ← Spread of the plague in 1350
- ← Spread of the plague in 1351
- ← Possible but unconfirmed spread of the plague



SMALLPOX ORIGIN

NORTHEAST AFRICA
c. 10,000 BC
Smallpox is believed to have first appeared with early agricultural settlements

RUSSIA
1614
Incidents of major smallpox outbreaks stretch from Europe all the way to Siberia

SIBERIA
2009
One of two remaining stocks of smallpox is held under lock and key to prevent possible use as biological weapon

SWEDEN
1902
Ronald Ross is awarded the Nobel Prize in Physiology or Medicine for discovering malarial parasites in mosquitoes

ITALY
c. 60 BC
Pompey's troops return from Syria with new territory and leprosy

ROMANIA
2005
Last remaining leper colony in Europe

ASIA MINOR
1350 BC
First recorded smallpox epidemic destroys Hittite army

CHINA
c. 400 BC
Trade with India facilitates leprosy's spread through Southeast Asia

CHINA
340
Earliest written account of using the plant qing-hao for treatment of malarial fever

MIDDLE EAST and EASTERN MEDITERRANEAN
c. 327 BC
Returning from India, Alexander the Great's army is said to introduce leprosy to the West

EGYPT
1570 BC
Skin lesions resembling smallpox found on mummies

INDIA
c. 1870
Schweppes tonic of carbonated quinine gains popularity among British colonists for preventing contraction of malaria

INDIA
c. 1500 BC
Egyptian merchants arrive bearing smallpox

INDIA
c. 2000 BC
Oldest documented skeletal evidence of leprosy

AFRICA
2009
A child dies of malaria every thirty seconds

LEPROSY ORIGIN
EAST AFRICA
c. 40,000 BC
Likely point of origin

MALARIA EARLIEST EVIDENCE
DOMINICAN REPUBLIC
30,000,000 BC
Malaria plasmodium is traced to a mosquito found in a piece of amber

U.S.
1951
DDT eradicates malaria in the United States

ATLANTA
2009
One of two remaining stocks of smallpox is held under lock and key to prevent possible use as biological weapon

WESTERN HEMISPHERE
1507
Spanish conquistadors bring smallpox to the Americas

LOUISIANA
1941
First effective leprosy drug developed

MEXICO
1520
African slaves spread smallpox to North American mainland

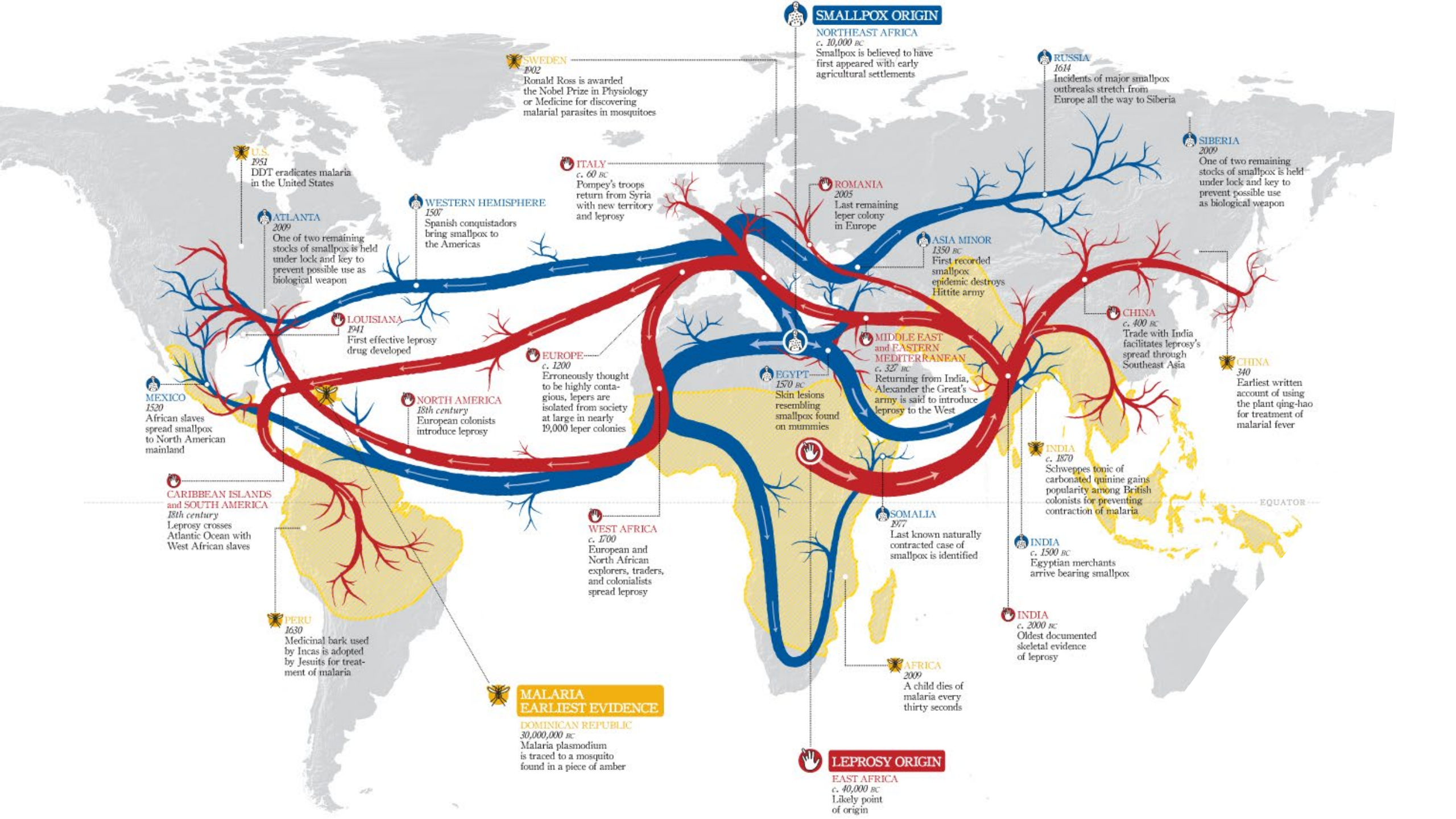
CARIBBEAN ISLANDS and SOUTH AMERICA
18th century
Leprosy crosses Atlantic Ocean with West African slaves

PERU
1630
Medicinal bark used by Incas is adopted by Jesuits for treatment of malaria

NORTH AMERICA
18th century
European colonists introduce leprosy

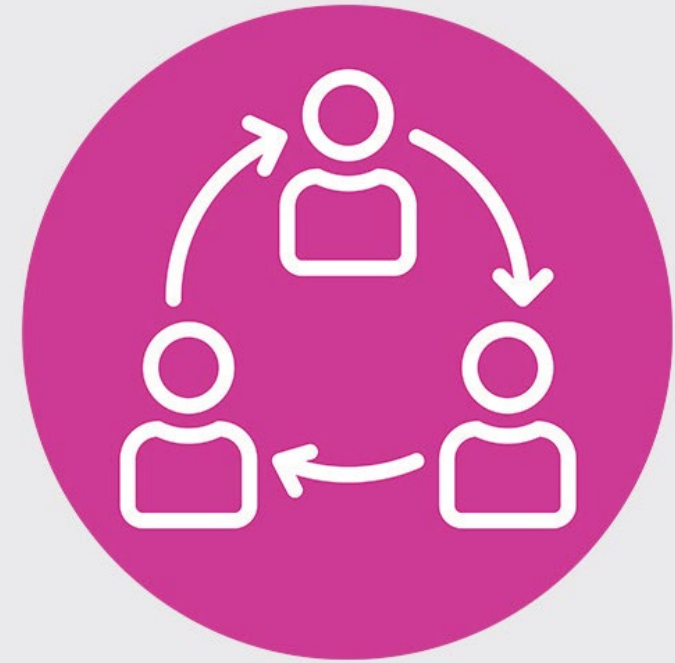
EUROPE
c. 1200
Erroneously thought to be highly contagious, lepers are isolated from society at large in nearly 19,000 leper colonies

WEST AFRICA
c. 1700
European and North African explorers, traders, and colonialists spread leprosy





- Networks are the patterns of connections between and among people and their communities. Networks link populations of people, enabling people living in different communities to move and share ideas, material goods, crops, animals, pathogens, and even people. We communicate across and through our networks



Networks

Key Ideas and Understanding

- I began this lecture with a philosophical statement common to the Zulu people of southern Africa. What idea does this statement express?
- How did networks expand during the period from 1200-1450?
- What transformations in networks have occurred in the period from 1450-1750?
- In the past two hundred years, in the period from 1750-1914, how have new technologies helped develop networks that spread ideas rapidly?
- What are some of the unexpected consequences of growing interconnection?
- I ended this lecture with several questions. What problems does it suggest people might have within the new sorts of networks?

Evaluating and Corroborating

1. The networks frame and the communities frame overlap somewhat, but they are also different. How would you explain the difference between a network and a community?
2. Think about the sorts of networks that affect your life. How large are they? In what kinds of networks do you have the most influence?