

Jared Diamond, Guns, Germs, Steel: A Geographic Explanation of History

Yali's Question (p. 14):

Why is it that you white people developed so much cargo and brought it to New Guinea, but we black people had little cargo of our own?

Essential Questions:

What material conditions influence (determine) “culture”?

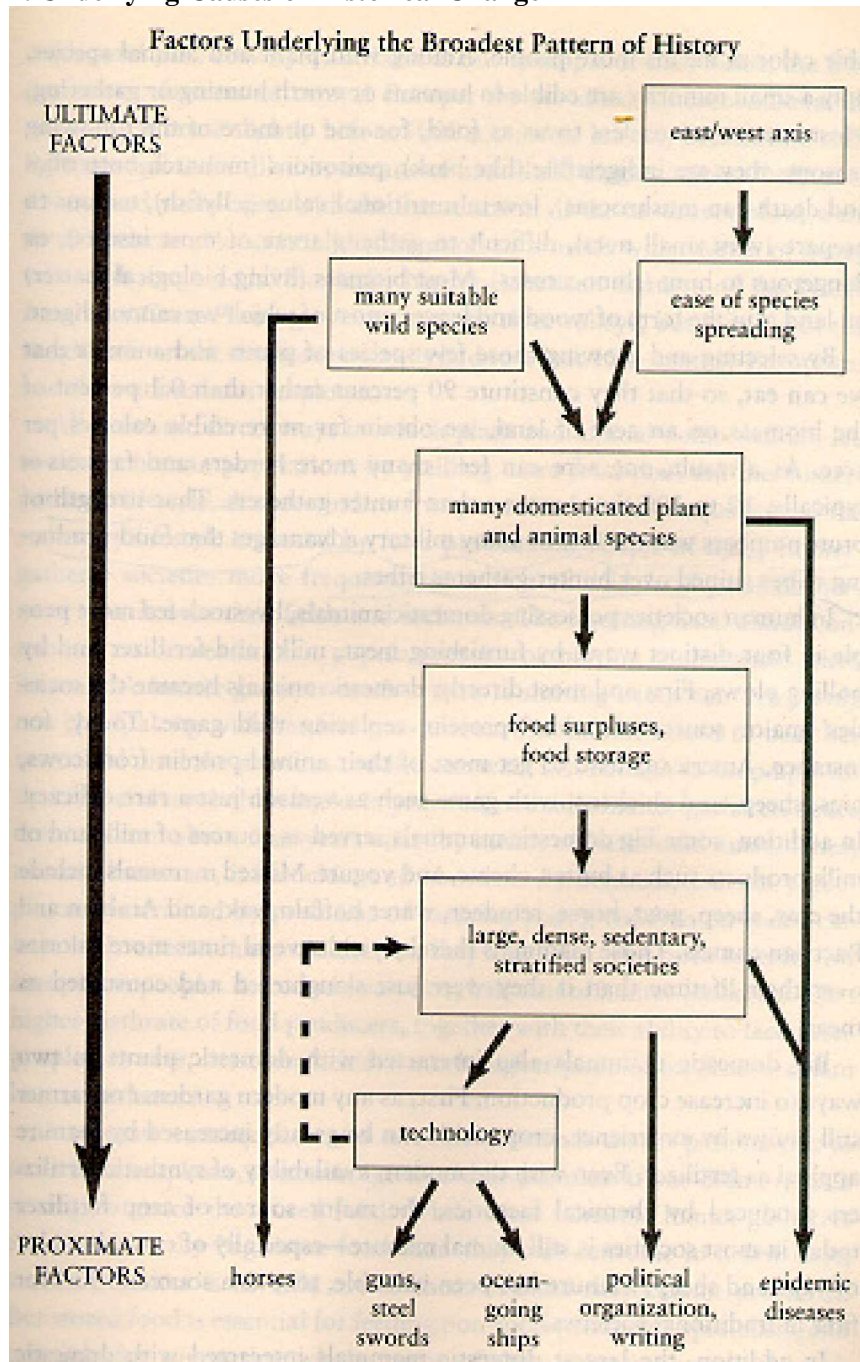
What is the impact of geography on history (geographic determinism)?

Is our history written in our genes (biological determinism/ racial inferiority)?

Are some cultures “superior” to others (cultural determinism)?

What role do contingency (accident?) and free will play in history?

1. Underlying Causes of Historical Change



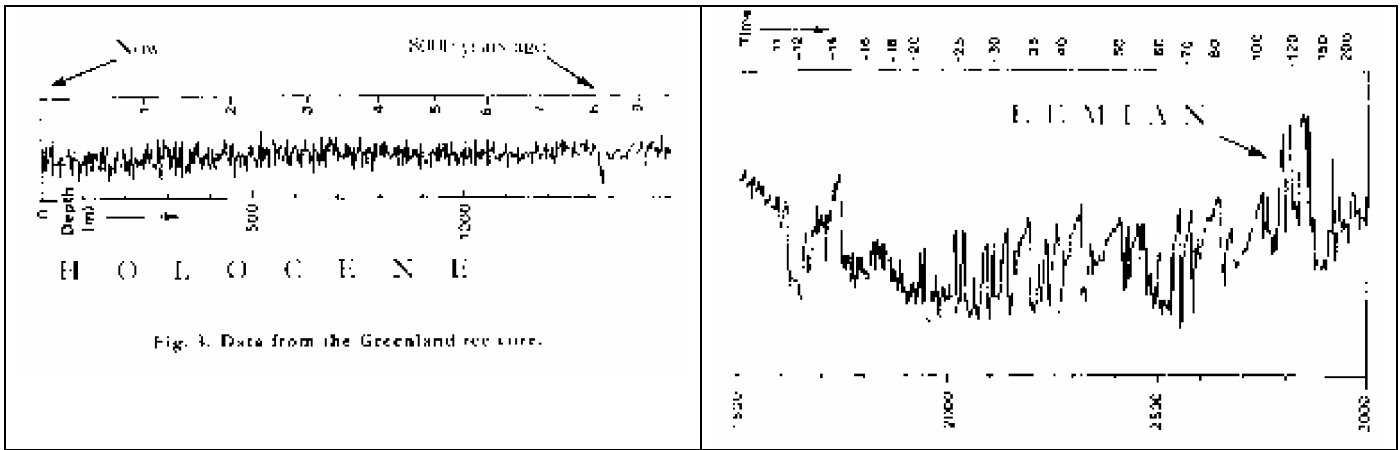


Fig. 3. Data from the Greenland ice core.

2. East/West Axis

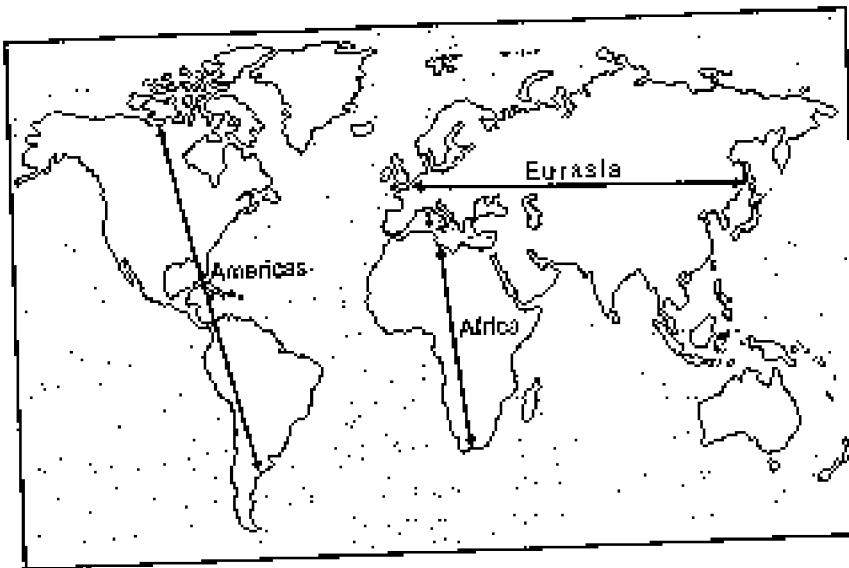


Figure 10.1. Major axes of the continents.

3. Climate Zones

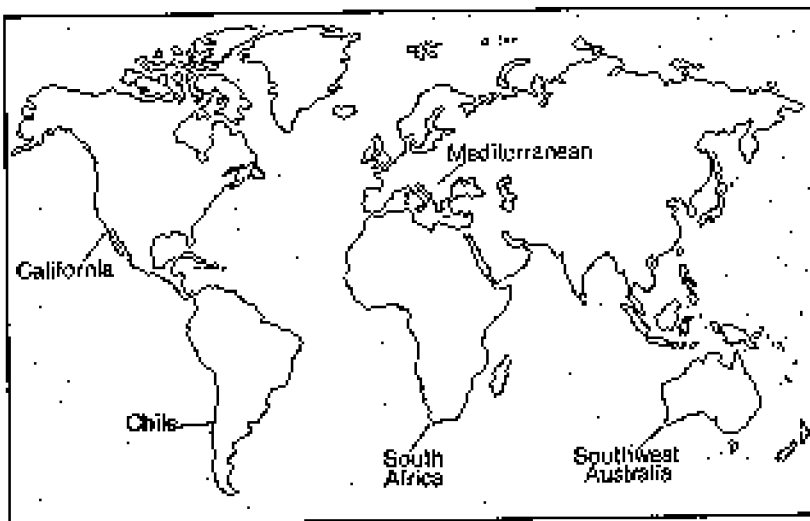
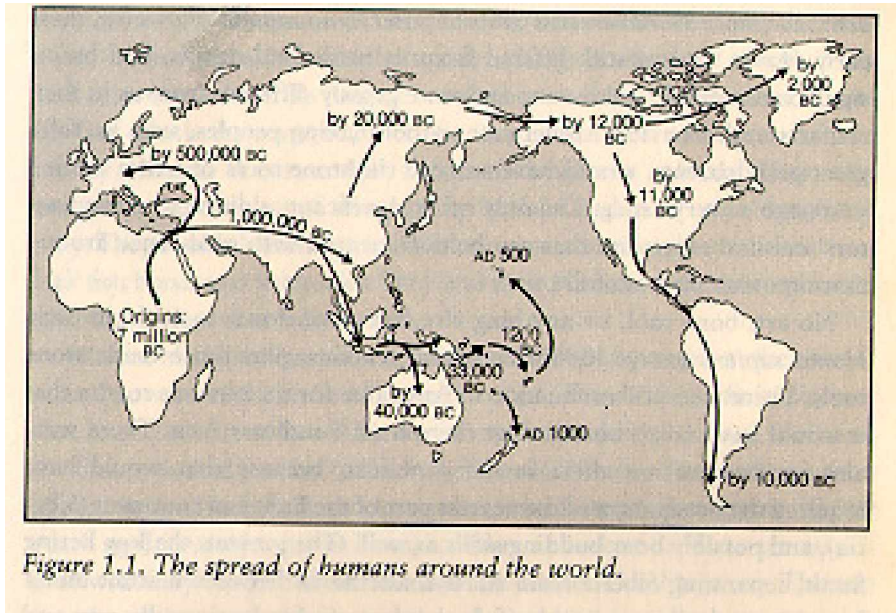


Figure 8.2. The world's zones of Mediterranean climate.

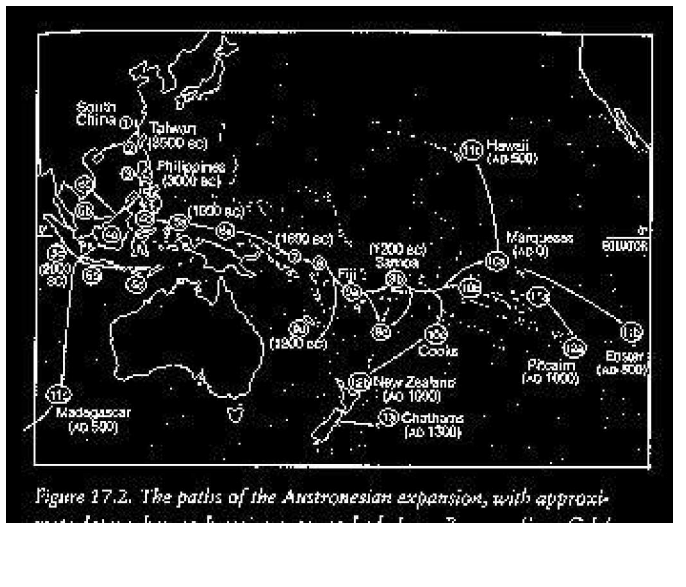
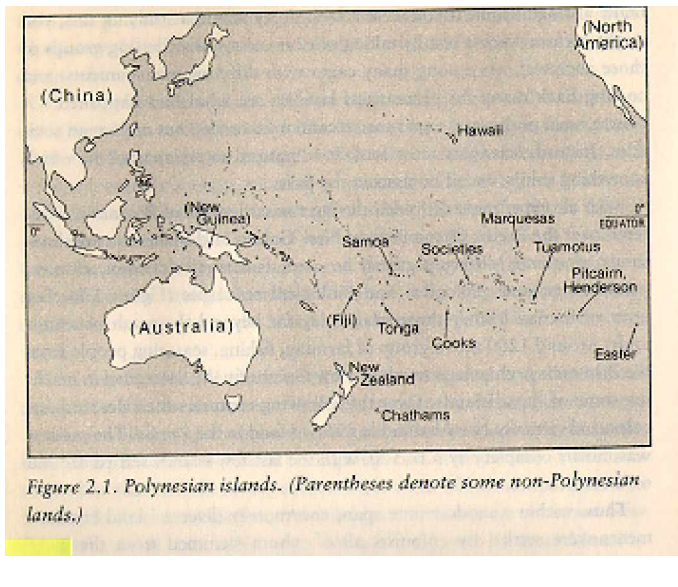


- | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| Tropical wet | Subtropical dry summer |
| Tropical wet and dry | Humid subtropical |
| Semiarid | Humid oceanic |
| Desert | Highland |

4. Humanoid Migration



5. Pacific Migration



6. Food Origins

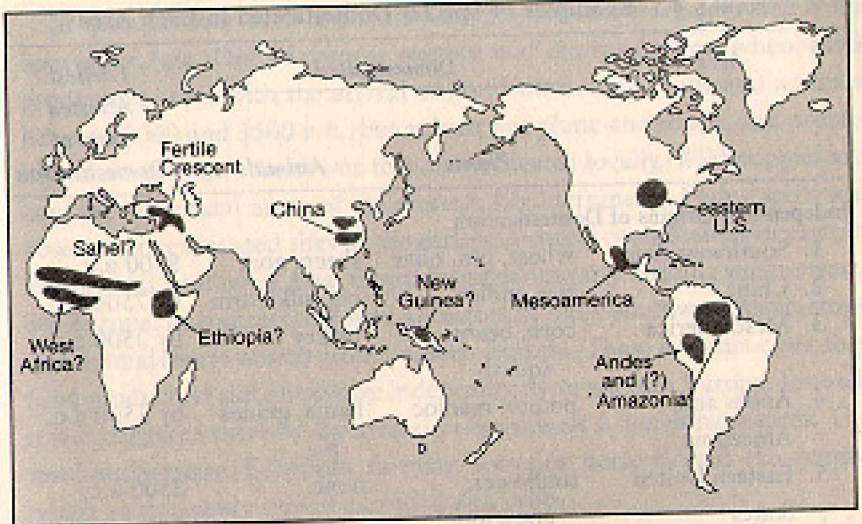


Figure 5.1. Centers of origin of food production. A question mark indicates some uncertainty whether the rise of food production at that center was really uninfluenced by the spread of food production from other centers, or (in the case of New Guinea) what the earliest crops were.

7. Fertile Crescent

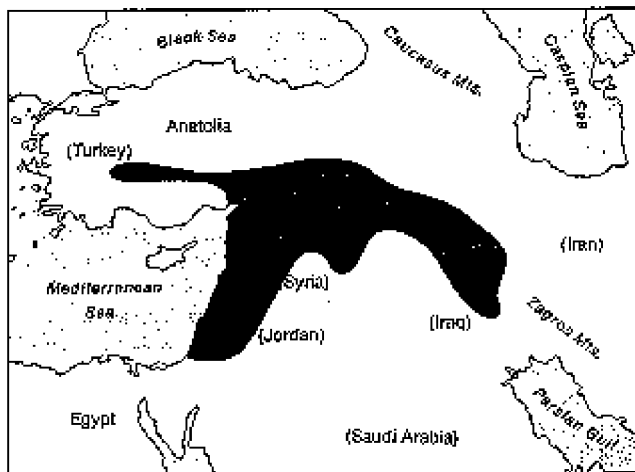


Figure 8.1. The Fertile Crescent, encompassing sites of food production before 7000 B.C.

Spread of Fertile Crescent Crops

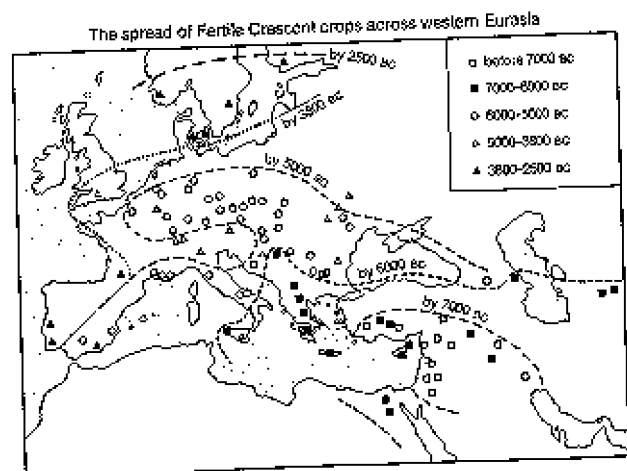




Fig. 7: Wild and domesticated einkorn wheat.

8. Domesticated Animals

Fourteen Species of Big Herbivorous Domestic Animals (p. 160-161)

Major Five	Wild Ancestor Original	Original Range	Minor Nine	Wild Ancestor	Range
Sheep	Asiatic mouflon sheep	west central Asia	Arabian camel (one-hump)	One- hump camel	Arabia
Goat	Bezoar goat	West Asia	Bactrian camel (two-hump)	Two-hump camel	Central Asia
Cow	Aurochs	Eurasia North Africa	Llama/alpaca	Guanaco	Andes
Pig	Wild boar	Eurasia North Africa	Donkey	Wild ass	North Africa Southwest Asia
Horse	Wild horse	Russian steppe	Reindeer	Reindeer	Arctic Eurasia
			Water buffalo	Water buffalo	Southeast Asia
			Yak	Wild Yak	Himalayas
			Bali cattle	Banteng (aurochs)	Southeast Asia
			Mithan	Gaur (aurochs)	India & Burma

Mammalian Candidates for Domestication (p. 162)

	Eurasia	Sub-Sahara Africa	Americas	Australia
Candidates	72	51	24	1
Domesticated	13	0	1	0
Percent	18%	0	4%	0

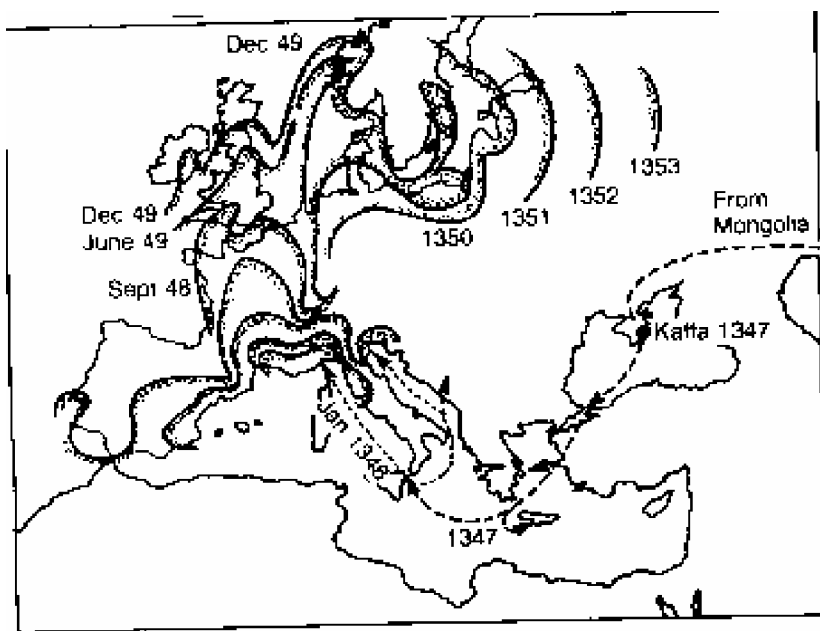
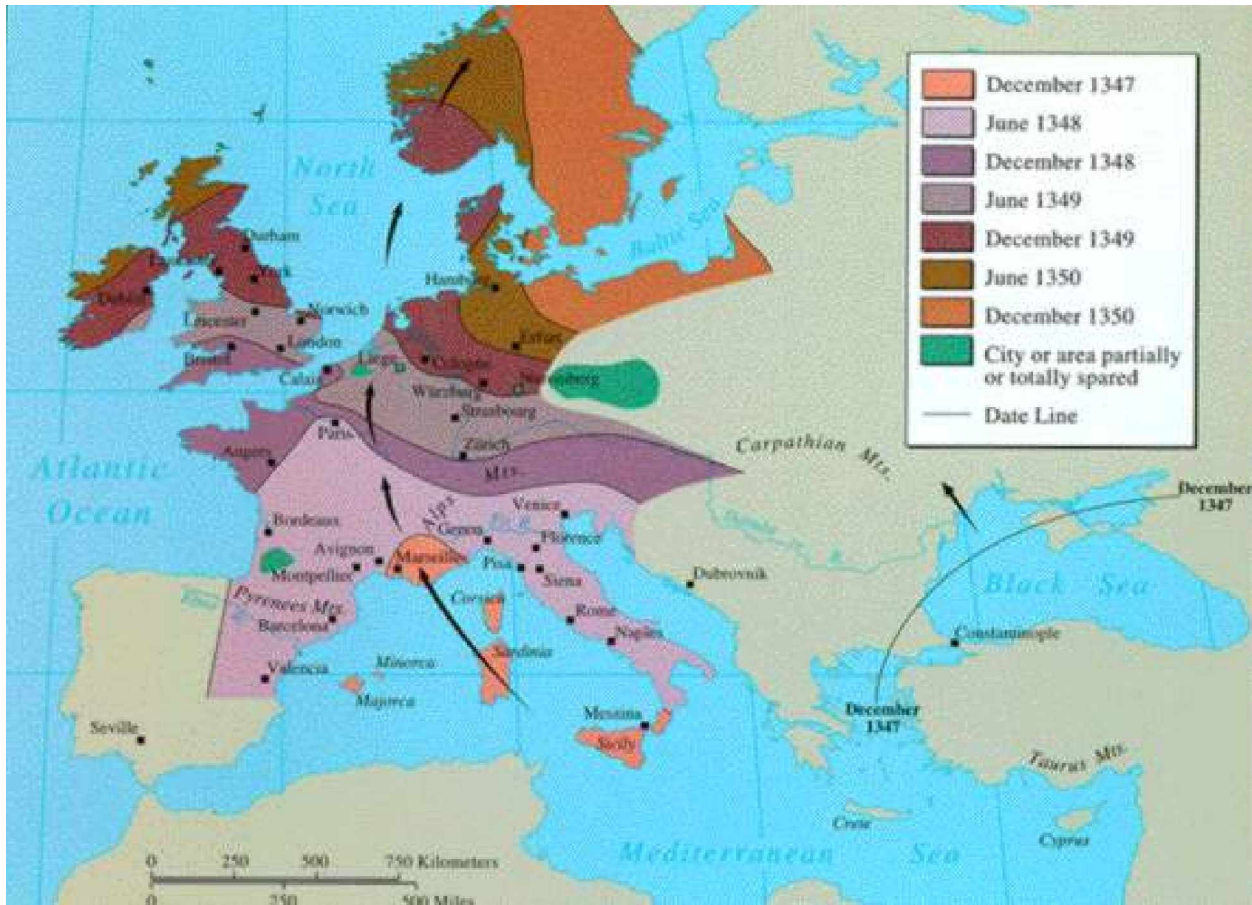
Dates of Domestication of large Mammal Species (p. 167)

Species	Date	Place
Dog	10,000 BC	Southwest Asia, China, North America
Sheep	8,000 BC	Southwest Asia
Goat	8,000 BC	Southwest Asia
Pig	8,000 BC	China, Southwest Asia
Cow	6,000 BC	Southwest Asia, India, North Africa (?)
Horse	4,000 BC	Ukraine
Donkey	4,000 BC	Egypt
Llama/Alpaca	3,500 BC	Andes
Bactrian Camel (two-hump)	2,500 BC	Central Asia
Arabian Camel (one-hump)	2,500 BC	Arabia

Deadly Diseases from Animals (p. 207)

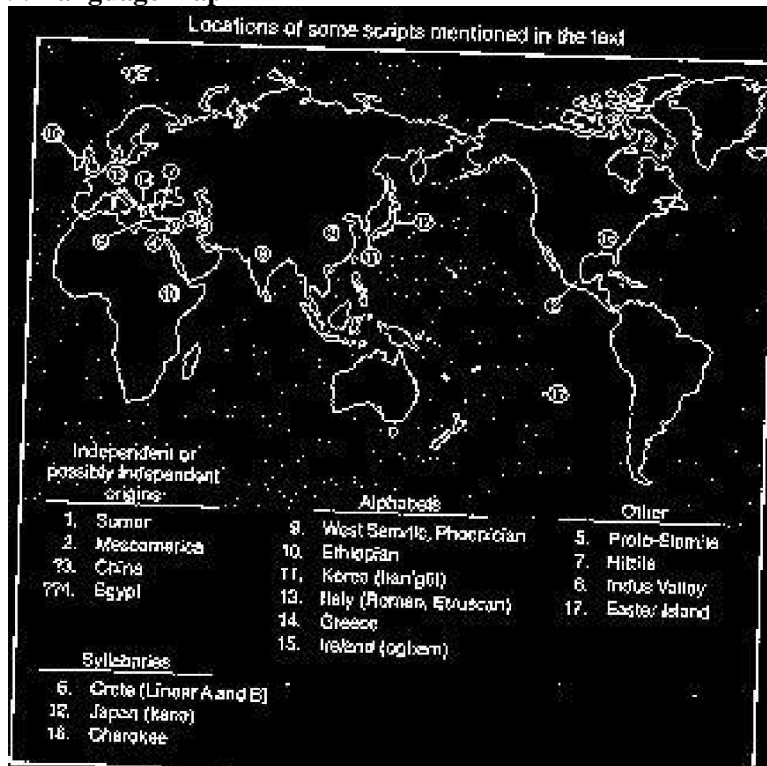
Human Disease	Most likely animal host & pathogen
Measles	Cattle (rinderpest)
Tuberculosis	Cattle
Smallpox	Cattle (cowpox)
Flu	Pigs & Ducks
Pertussis	Pigs & Dogs
Falciparum malaria	Chickens & Ducks (?)
HIV-AIDS	Monkeys (Simian IV)

Spread of the Bubonic Plague in Europe

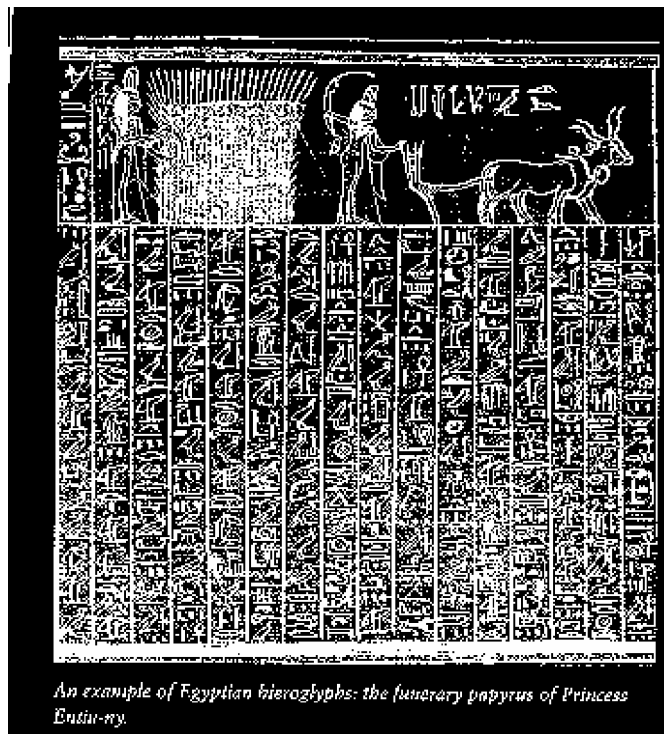


The spread of the Black Death in Europe, 1347-53

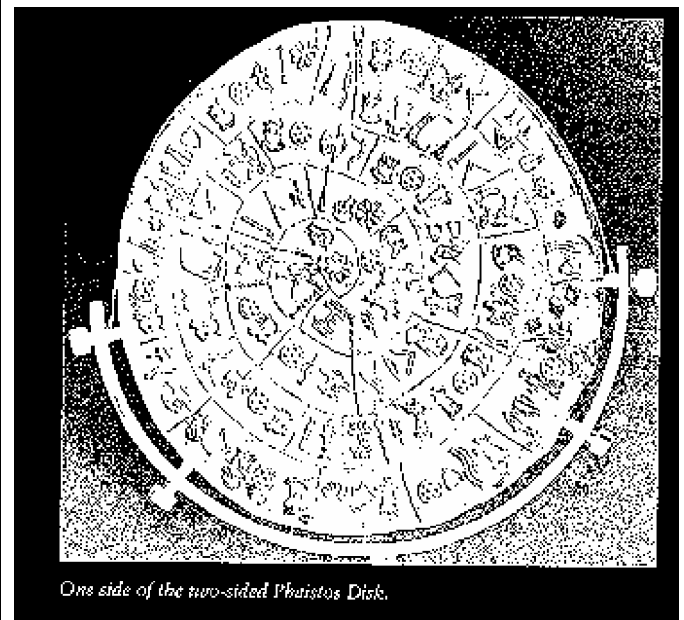
9. Language map



10. Egyptian Hieroglyphics



11. Mesopotamian Printing Disk



12. Korean Alphabet

BLUEPRINTS AND BORROWED LETTERS * 2 3 1

산 유 흥

산에는 꽃피네
꽃이 피네
산은 높여를 없이
꽃이 피네

산에
산에
피는 꽃을
저만치 혼자서 피어왔네
산에서 무는 띠를 새로
꽃이 좋아
산에서
사보라네

산에는 꽃피네
꽃이 피네
산은 높여를 없이
꽃이 지네

김소월

A Korean text (the poem "Flowers on the Hills" by So-Wol Kim), illustrating the remarkable Han'gul writing system. Each square block represents a syllable, but each component sign within the block represents a letter.

13. Cherokee Alphabet

BLUEPRINTS AND BORROWED LETTERS * 2 2 9

D _{da}	R _{ra}	T _{ta}	Ꮓ _{da}	Ꮖ _{va}	Ꮗ _{va}
S _{sa} Ꮝ _{sa}	F _{fa}	Y _{ya}	A _{ga}	J _{gu}	E _{gv}
Ꮖ _{na}	P _{pe}	Ꮖ _{na}	I _{no}	Ꮖ _{nu}	Ꮖ _{lv}
W _{wa}	Ꮖ _{la}	F _{fa}	G _{lo}	M _{lu}	Ꮖ _{lv}
Ꮖ _{na}	Ꮖ _{me}	H _{ha}	Ꮖ _{no}	Y _{mu}	
Ꮖ _{na} Ꮖ _{na} Ꮖ _{na}	Ꮖ _{ne}	Ꮖ _{na}	Z _{no}	Ꮖ _{nu}	Ꮖ _{nv}
Ꮖ _{na}	Ꮖ _{quc}	P _{pa}	V _{quc}	Ꮖ _{quc}	Ꮖ _{quv}
H _{sa} Ꮖ _{sa}	A _{sa}	B _{sa}	F _{sa}	Ꮖ _{sa}	R _{sv}
L _{da} W _{da}	S _{da} Ꮖ _{da}	J _{da} Ꮖ _{da}	V _{da}	S _{da}	Ꮖ _{dv}
Ꮖ _{da} L _{da}	L _{da}	C _{ui}	Ꮖ _{da}	Ꮖ _{da}	P _{dv}
G _{da}	V _{da}	K _{da}	Ꮖ _{da}	Ꮖ _{da}	C _{dv}
G _{da}	Ꮖ _{da}	Ꮖ _{da}	Ꮖ _{da}	Ꮖ _{da}	Ꮖ _{dv}
Ꮖ _{da}	B _{ya}	Ꮖ _{da}	Ꮖ _{da}	Ꮖ _{da}	B _{ya}

The set of signs that Sequoyah devised to represent syllables of the Cherokee language.

14. Norse Atlantic

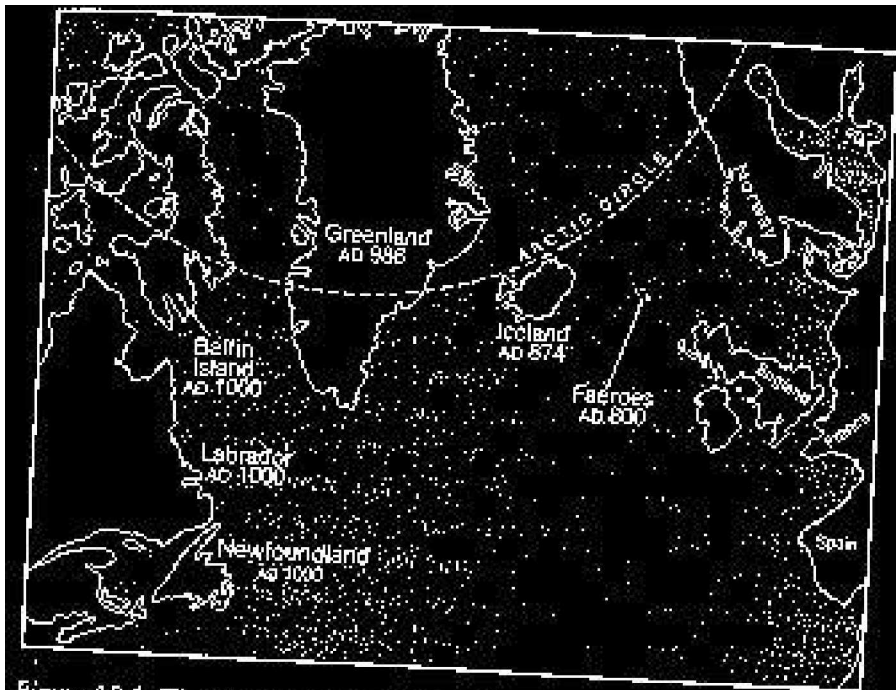


Figure 18.1. The Norse expansion from Norway across the North Atlantic, with dates or approximate dates when each area was reached.

15. African Peoples

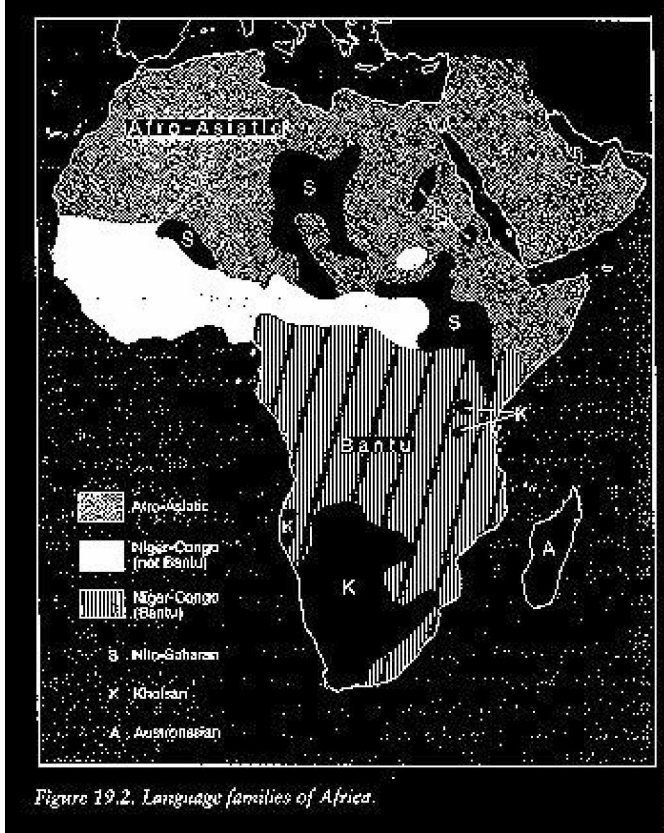
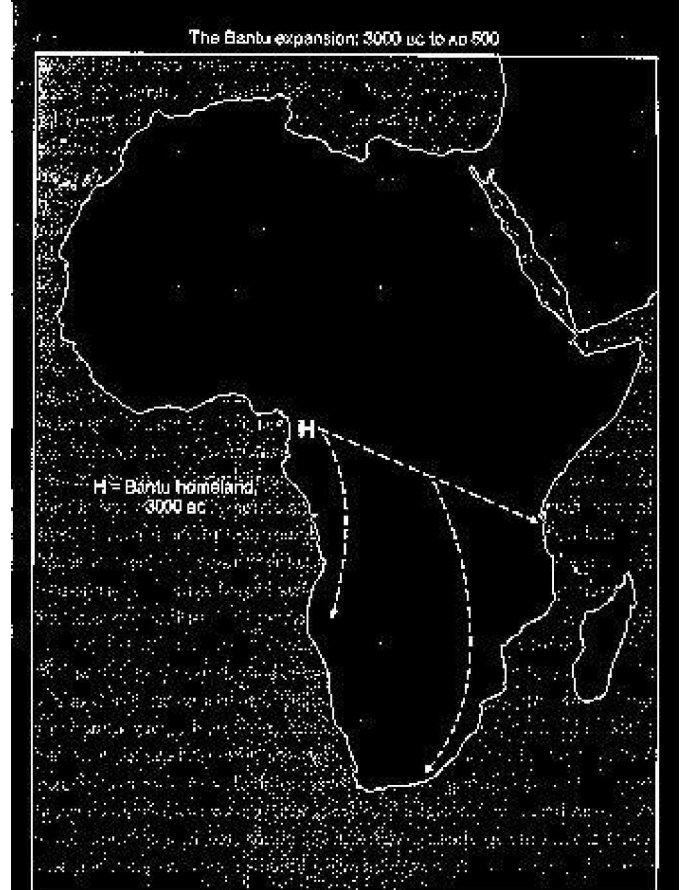


Figure 19.2. Language families of Africa.

16. Bantu Migration



17. African Crops

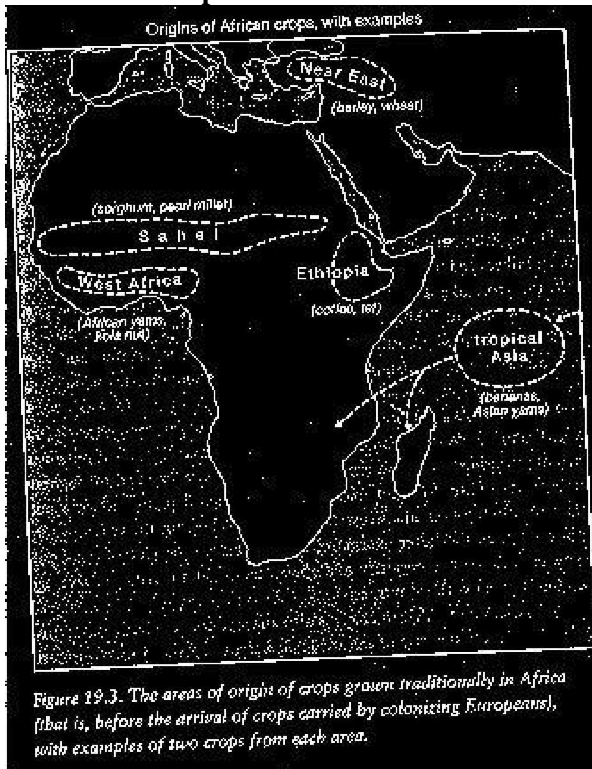


Figure 19.3. The areas of origin of crops grown traditionally in Africa (that is, before the arrival of crops carried by colonizing Europeans), with examples of two crops from each area.

18. Comparing Coastlines – Atlantic Europe and Pacific Asia



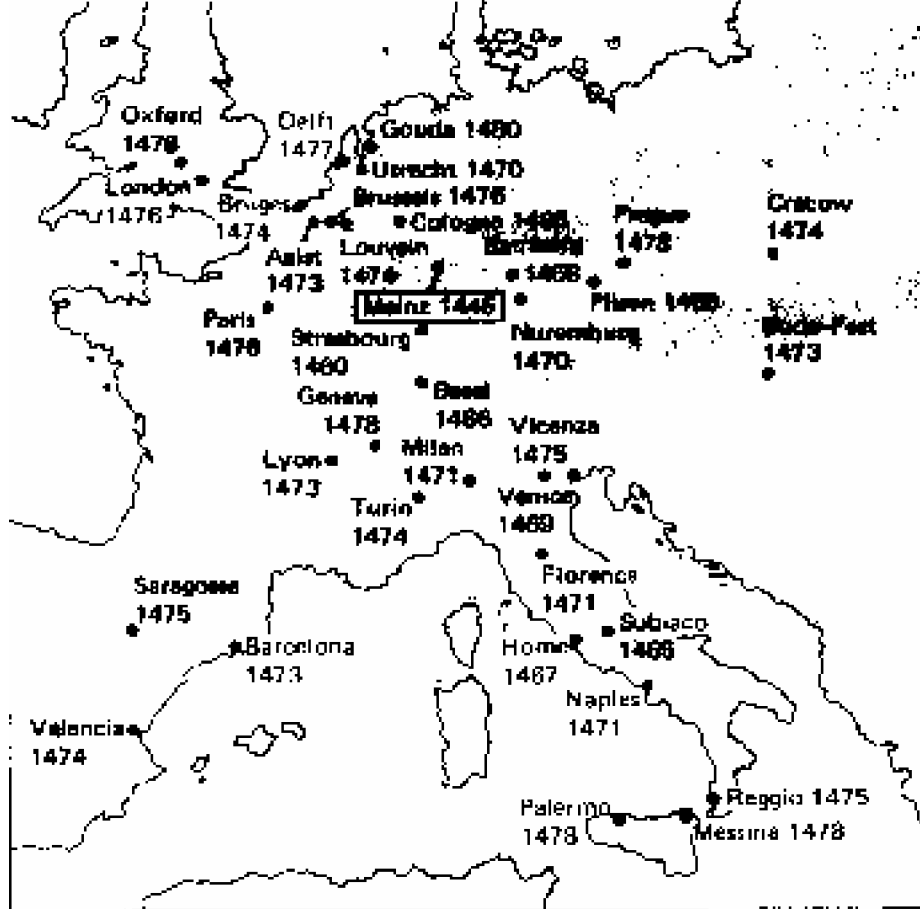
500 miles



Comparison of the coastlines of China and of Europe, drawn to the same scale. Note that Europe's is much more indented and includes more large peninsulas and two large islands.

How printing covered the map

Dates show first printing shop in operation



19. Types of Human Societies

Characteristics	Band	Tribe	Chiefdom	State
Number of people	Dozens	Hundreds	Thousands	Over 50,000
Settlement patterns	Nomadic	One village	One or more villages	Many villages
Relationships	Kin	Clan based kinship	Class & residence	Class & residence
Ethnicities/languages	One	One	One	One or more
Decision making	Egalitarian	Egalitarian/big man	Centralized/hereditary	Centralized
Bureaucracy	None	None	None/minimal	Many levels
Monopoly of Power	No	No	Yes	Yes
Conflict resolution	Informal	Informal	Centralized	Laws, Judges
Central Administration	No	No	Starts	Capital
Religion supports class	No	No	Yes	Maybe
Food production	No	Starts	Becomes intensive	Intensives
Division of labor	No	No	Starts	Yes
Exchange	Reciprocal	Reciprocal	Tribute	Taxes
Control of land	Collective	Clan	Chief	Various
Social Stratification	None	None	Starts, by kinship	Established
Slavery	None	None	Small-scale	Large-scale
Luxury for Elite	None	None	Yes	Yes
Public architecture	None	None	Starts	Yes
Indigenous literacy	None	None	No	Often

20. Dates for Major Developments in Human History (p. 362-363)

Developments	Fertile Crescent	British Isles	China	Andes	Amazonia	Mesoamerica	Eastern US
Plant Domestication	8500 BC	3500 BC	7500 BC	3000 BC	3000 BC	3000 BC	2500 BC
Animal Domestication	8000 BC	3500 BC	7500 BC	3500 BC	?	500 BC	---
Pottery	7000 BC	3500 BC	7500 BC	3100 BC	6000 BC	1500 BC	2500 BC
Villages	9000 BC	3000 BC	7500 BC	3100 BC	6000 BC	1500 BC	500 BC
Chiefdoms	5500 BC	2500 BC	4000 BC	1500 BC	1 AD	1500 BC	200 BC
Copper & Bronze tools	4000 BC	2000 BC	2000 BC	1000 AD	---	---	---
States	3700 BC	500 AD	2000 BC	1 AD	---	300 BC	---
Writing	3200 BC	43 AD	1300 BC	---	---	600 BC	---
Iron Tools	900 BC	650 BC	500 BC	---	---	---	---

21. Human Population of Continents

Continent	1990	Area square miles
Eurasia & North Africa	4,120,000,000	24,200,000
Eurasia	4,000,000,000	21,500,000
North Africa	120,000,000	2,700,000
Americas	736,000,000	16,400,000
Sub-Saharan Africa	535,000,000	9,100,000
Australia	18,000,000	3,000,000