

منتدى الثلاثاء الثقافي

مراجعة كتاب

Guns Germs and Steel

The Fates of Human Societies

Jared Diamond

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Jared Diamond

- Born on September 10, 1937 in Boston, Massachusetts.
- Graduated from Cambridge.
- Diamond returned to Harvard as a Junior Fellow until 1965.
- Professor of physiology (علم وظائف الأعضاء) at UCLA Medical School from 1968.
- While in his twenties he developed a second, parallel, career in ornithology (علم الطيور) and ecology (علم البيئة)

Popular science works:

- The Third Chimpanzee: The Evolution and Future of the Human Animal
- Guns, Germs, and Steel: The Fates of Human Societies, 1997. Winner of the Pulitzer Prize in 1998.
- Why is Sex Fun? 1997
- How Societies Choose to Fail or Succeed 2005
- Co-edited (with James Robinson) Natural Experiments of History 2010.



“Why did the rate of progress differ so much for cultures on different continents?”

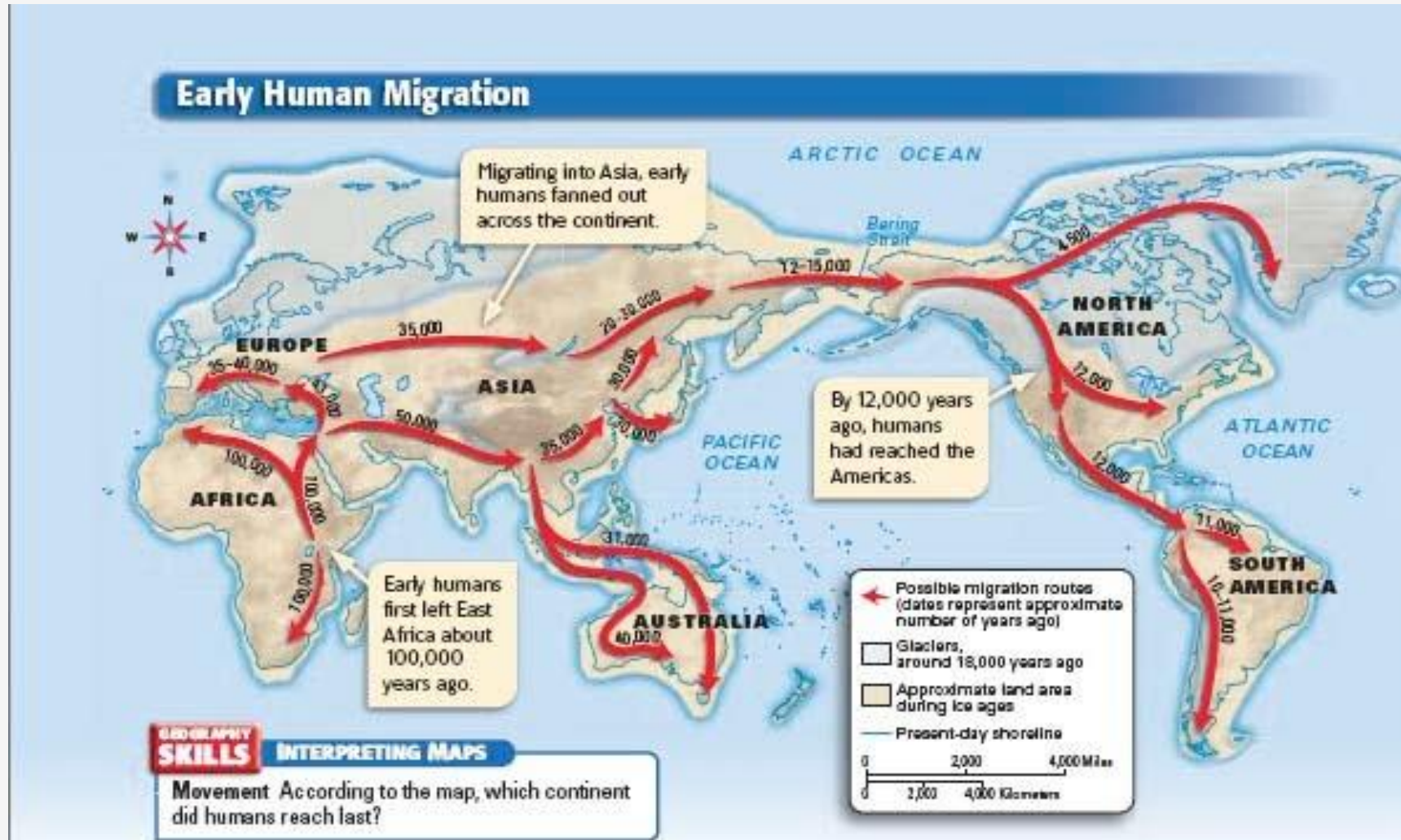


Yali wanted to know, “Why is it that you white people developed so much cargo and brought it to New Guinea, but we black people had little cargo of our own?”

Difference In Progress

- Understanding the causes of history improves our ability to intervene and improve the world. Many people mistakenly assume that discussing history is just a way to explain away tough issues. Not at all. It improves our ability to take effective action.
- The most common explanation of the different trajectories experienced by Europe compared to Africa, Asia, Oceania, etc. is genetic and biological. People assume there is some innate biological difference that made Europeans smarter, more creative, or more resilient. Science, however, has produced no substantial evidence to indicate this is the primary cause of different outcomes.

Human Migrations



Collision at Cajamarca

- What allowed hundreds to defeat thousands?
- When Francisco Pizarro led a Spanish expedition to the Inca Empire in the early 16th century, he was able to defeat the Incan Emperor, Atahualpa easily. Here is Pizarro did it:
 - Stationed groups of men with guns around a square.
 - Put rattles on his men's horses so they would make more noise.
 - Presented the king with a Bible and a message about its contents.
 - Atahualpa, unable to read Spanish and offended by Pizarro's manners, threw the Bible to the ground.
 - The Spaniards attacked, killing Incan soldiers and capturing Atahualpa.








Farmer Power

- Using carbon-dating technology, archaeologists have determined that the first sites of agriculture were Mesopotamia 8500 BC.
- There are five places where people certainly invented agriculture Southwest Asia's Fertile Crescent, China, Mexico, the South American Andes, and Eastern North America.
- In Mesopotamia, ancient humans used trial and error to learn how to plant certain large seeds in the earth, resulting in crops that could be harvested and converted into highly nutritious foods.



Animals Domestication

- Domestication of large mammals ended approximately 4500 years ago. This indicates humans attempted to domesticate all of them and no suitable species remained.
- To be domesticable, an animal must:
 - Grow quickly.
 - Breed in captivity.
 - Have a diet manageable by human owners.
 - It must also be gentle enough and passive enough to not be a constant threat by killing people or destroying property.
 - Descend from wild cousins that live in social groups with detailed dominance hierarchies and overlapping ranges.

TABLE 1. Candidates for Domestication		on
Candidates		Australia
Domesticated		1
Percentage of candidates domesticated		0
		0%
		omnivorous, wild

A "candidate" mammal weighing on the average over 100 pounds.

Domestic Animals

- Domestic animals are not the cleanest things in the world.
- Often living in very close proximity with humans, not to mention their own feces.
- Farming = more exposure to animals = higher chance of disease
Cattle Smallpox, tuberculosis, measles
- Creation of human epidemics

Domestication Dates

(large mammals)

Species	Date (B.C.E.)	Place
Dog	10,000	SW Asia, China, N.Amer.
Sheep	8,000	SW Asia
Goat	8,000	SW Asia
Pig	8,000	SW Asia, China
Cow	6,000	SW Asia, India
Horse	4,000	Ukraine
Donkey	4,000	Egypt
Water Buffalo	4,000	China?
Llama	3,500	Andes
Bactrian camel	2,500	Central Asia
Arabian camel	2,500	Arabia

Human Diseases from Domestic Animals

TABLE II.I Deadly Gifts from Our Animal Friends

<i>Human Disease</i>	<i>Animal with Most Closely Related Pathogen</i>
Measles	cattle (rinderpest)
Tuberculosis	cattle
Smallpox	cattle (cowpox) or other livestock with related pox viruses
Flu	pigs and ducks
Pertussis	pigs, dogs
Falciparum malaria	birds (chickens and ducks?)

- Europe, and by extension, Eurasian society had built up its immunity to diseases, its societies, governments over several thousand years in isolation of the societies that they conquered.
- Disease will be a very critical element in the European conquest of the New World
 - Valley of Mexico in 1450: 16 million people
 - All of Mexico by 1600: 2 million people
 - North Americas 20
 - In two centuries 95% of the population had died.

Development of Writing

- The structure of agriculture society (which requires lots of record-keeping for crops) invent writing
- Basic strategies for representing language in written symbols:
 - Alphabetic systems display individual sounds as written signs
 - Logographic systems display words as signs.
 - Syllabic systems display syllables as signs.
- Writing started with cuneiform by Sumerian in 3000 B.C. Writing evolved independently in a few areas but was spread via idea diffusion in most cultures and locations.

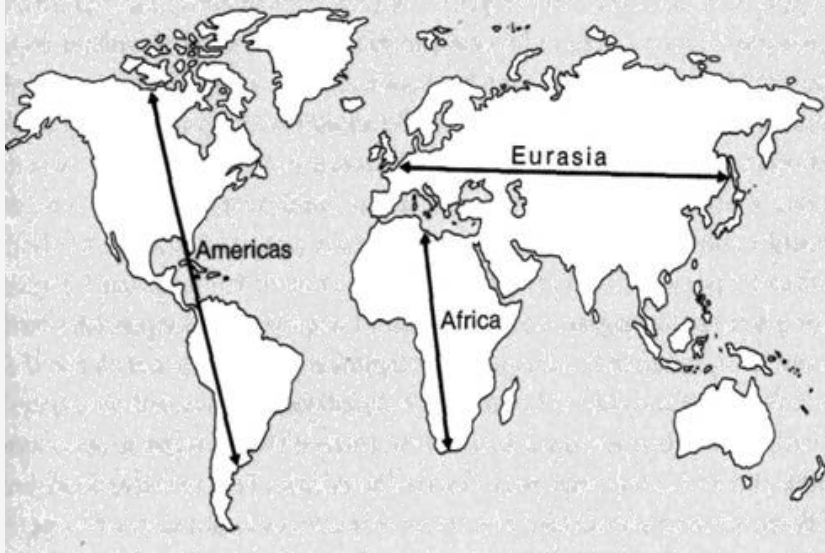


Development of Writing

- The first true alphabet seems to have occurred in Egyptian hieroglyphics, which developed a set of symbols for the twenty-four consonant sounds in the Egyptian language. However, Egyptians did not use this alphabet to represent all their words. They retained logograms and symbols for many important ideas. Around 1700 B.C., Semites who knew the Egyptian system adopted it and abandoned most logograms, instead using a purely alphabetic system to write the Semitic language.
- Other peoples copied this alphabet (blueprints) or diffused the idea.



Continental Axis



Geography matters:

- Temperature also stays more the same in the same longitude (east-west) versus moving across latitude (north-south)
- The landmass of Eurasia, laid out on an east-west axis, allowed for the trading of crops and animals. The Americas, stretched out on a north-south axis, traverses various climate zones and geographic boundaries, discouraging trade.
- Thus, crops that grow in Western Russia will also grow in France. But crops grown in France will NOT grow in Libya. European and Eurasian societies had domesticable grain crops available to them that allowed a FRACTION of the population to feed ALL of the population.

Conclusion

- There are four primary reasons Europeans rose:
 - The continental differences in the plants and animals available for domestication, which led to more food and larger populations in Europe and Asia.
 - The rate of diffusion of agriculture, technology and innovation due to the geographic orientation of Europe and Asia (east-west).
 - The ease of intercontinental diffusion between Europe, Asia, and Africa,
 - The differences in continental size, which led to differences in total population size and technology diffusion.
- All human societies contain inventive people. It's just that some environments provide more starting materials, and more favorable conditions for utilizing inventions, than do other environments.”
- The Fertile Crescent was probably the earliest civilization that had cities, written language, and widespread empires. According to Diamond, all of these were dependent on the ability of the people to grow and store food.

Conclusion

- The theory of geographic determinism, the idea that the differences between societies and societal development arise primarily from geographical causes.
- Yale's question is answered by accidental geography and environment.
 - Food and animal domestication.
 - Differences in diffusion and migration rates Population size.
 - Geographic barriers need to be intermediate.
- Diamond ignore two factors:
 - China did not follow the same way as European. Though they have the gun and steel power.
 - Government and religion are two of the main reasons some societies overcame others. Religion Effect that drives going to the new world and invading old world.

شكرا لكم على حسن الاستماع

The winners of past wars were not always the armies with the best generals and weapons but were often merely those bearing the nastiest germs to transmit to their enemies.

It is ultimately geography, not biology or race as some other studies have tried to prove, that produced the cultural disparities.

