

- Rainforest of New Guinea
  - Cargo→ the material goods first brought to New Guinea by Westerners
    - Evidence of the white man's power
    - Reverence
  - Europeans thought they were genetically superior
    - Made sense they had more cargo
  - Technology, large populations, well organized workforce were all staples of a well established regime
- Middle East→ humans were thriving 13 000 years ago
  - More forests, trees and plants
  - Hunter gatherers in small mobile groups
  - Nomad
  - Hunting is unpredictable, societies usually rely on gathering
  - Middle East plants → barley and wheat
    - Nutritious and plentiful
- 12 and a half thousand years → ice age conditions returned
  - Middle East suffered an environmental collapse
  - Drought lasted for more than a thousand years
- Jordan Valley-Drought
  - More sophisticated than any hunter gatherers
  - One of the earliest small village in the world
  - People were starting to put down roots
  - 11 and a half thousand years ago-same time as end of drought in Middle East
  - They had homes
- Grain, plants→ first granary. Place where they can store food (oval shaped mud wall building)
  - Primarily wheat and barley
  - Durable enough to be stored for years
  - At some point in the Middle East drought, people started growing their own food
  - Unable to maintain mobile way of life, remain close to any source of water they can find
  - Growing them in the village
  - First farmers in the world
- Changing the nature of the crops around them
  - With every round of harvest, they thrived more
  - Domestication (crops being changed due to human interference)
- Hunter gatherers couldn't produce as much food, couldn't store as much food
- Not long after Middle East, China
  - Rice
- Americas
  - Corn, squash, beans
- Africa
  - Sorgham, millet yams
- Most places where farming emerged, advanced civilizations

- New Guinea
- Fifty years after colonization, they thought the highland valley were uninhabited
  - Most densely populated
  - One of the oldest farming systems in the world
  - Almost as long as the Middle East
- Why weren't they sent down the same path?
  - Taro→ much more work
  - Low in protein
- Type of farming is just as important
  - Most productive crops, most productive farming
  - Americas have had an advantage over New Guineas because for generations they have grown more nutritious and productive crops (wheat)
- 9000 years ago→ domestication of animals
  - Instead of having to hunt, have a stable amount of meat year round
  - Not subjected to seasonal changes and dips
  - Milk→ ongoing source of protein
  - Hair and skin→ clothes
- After harvest period, animals can eat the remainder of the crops and then their shit acts as fertilizer
  - Symbiotic
- Goats and sheep were the first
  - At first, the meat
  - The plow
  - Before the industrial revolution, animals were the strongest tools of farming
  - Horses or oxes could transform the productivity of the land
  - More food, feed more people
- Nw Guinea→ didn't use plows, didn't have the animals to pull them
  - Only domestic animal was pig and it wasn't native
  - Pigs don't give you wool, leather, milk
  - Cannot be used for muscle power
  - Only muscle power was human muscle power
- Animals for domestication→ large, plant eating mammals
  - Don;t need to farm other animals to feed (herbivores)
  - Elephants→ south Asia, some of them are used for manual labour but it isn't domesticated. They are caught and trained
    - Doesn't make sense to domesticate an animal that takes 15 years to mature and reach an age where it can start reproducing
  - Animals that are fit for domestication can have offspring in their first or second years
    - One or two offspring a year, productivity is high
    - Social animals
    - Internal social hierarchy→ if humans can control the leader, they will control the whole tribe
    - Needs to have good temperament (zebras are flighty and vicious)

- 14 animals have been farmed successfully
  - The other 13 were all from Asia, North Africa or Europe
  - One in south America, llama
- The big four livestock animals→ Middle East
  - Home to best crops and the best animals
  - Fertile crescent
  - Geographically blessed
- Villages grew bigger, more people were able to farm
  - People were able to develop new skills and technologies now that everyone didn't need to hunter gather anymore
- Plaster from limestone→ major tech
  - Stones had to be heated for days at a time
  - First steps to forging steel
- New Guinea never developed advanced technology
  - Still stone tools
  - Why not metal?
    - Would necessitate enough of a food surplus to have people be able to master metal tools
  - Westerners colonized
- Fertile crescent lost its head start
  - Within a thousand years, most were abandoned
  - Climate was too dry, ecology too fragile to support this kind of farming
  - Destroyed the environment
- Fertile Crescent farming spread to the east and west to the Fertile Crescent at roughly the same latitude
  - Same length of day, climate and vegetation
  - Crops domesticated in the fertile crescent were able to prosper in other places along the east-west axis of Eurasia
- Wheat, cows, sheep and goats all spread throughout the fertile crescent
  - East toward India and west toward North Africa
  - Transformed human societies
- Reached Egypt, caused an explosion of human civilization
  - Enough food to feed engineers and pyramid builders
- Same for Europe
  - Artists, inventors and soldiers of Europe
- Same plants and animals were taken to the Americas from Europe

### Part three

- Europeans tried to colonize Africa
  - First European settlers Cape of Good Hope
  - Established themselves: farms, wheat, barley, sheep

- Cape→ lies at around the same latitude as Europe which means that the temperature and climate are almost exactly the same
- Europeans→ prosperous farms and settlements
- Khoisan→ original settlers of Cape
  - Driven from their land
  - Faced germs that weren't native to Africa
  - By being so close to the livestock, they built up immunity to viruses and germs of the animals (Europeans)
  - Natives didn't have this same resistance
    - Especially smallpox
- Europeans wanted to expand in Africa
  - 1830s→ thousands of Dutch farmers left the Cape in search of more land to occupy
  - Called themselves the war trekkers
  - They also had guns
  - Flintlock rifle
- Voortrekkers were in an alien and unexplored land
  - Native African army killed them
  - Trespassed across an African kingdom-Zulus
  - Zulus→ organized group of people. Unique and highly developed African state
    - Sophisticated civilization
- Voortrekkers showed little interest in the Zulus' ingenuity, they wanted a showdown
  - Europeans used their technology to kill the Zulus (guns)
  - Massacre
  - Battle of Blood river
- Pushed on past Zulu land (Europeans)
  - Railroads were key
  - Could transport mass amounts of their supplies
- Era of industrial revolution
  - Maxim gun
    - Could fire continuously up to 500 rounds a minute
    - First fully automatic weapon
- Land in Africa→ crops refused to grow, land became impossible to plow
  - Cape was a mirror of the European world but as they moved north, those conditions changed
- Tropic of Capricorn
  - Tropics
  - Operate by different rules
  - There are just two seasons; dry and rainy
  - Wheat and barely cannot survive in this climate
  - Native Africans depended on Agriculture→ why were they succeeding?
- Common root of all African languages
  - Bantu
  - Originated in tropical West Africa

- They spread into new lands, bringing their animals, crops, etc
- Their culture evolved and expanded into multiple tribes
- Place of the Jackle→ formed a kingdom similar to early civilization in Europe
  - Had cattle sheep, had iron
  - A lot of developments occurred in South Africa
  - Part of an international trade network
  - Developed a unique tropical system of agriculture that spread across continent and became foundations of complex societies
- As soon as they entered the tropics, Europeans and their animals fell ill
  - Fevers
  - Tropical africans showed fewer of these effects
  - They also had resistance to smallpox
  - Many of the diseases that were killing the Europeans were unique to the tropical world
- African cattle had developed a resistance to these diseases
  - The cattle might also explain why the Africans were more immune to smallpox than the Koi people
  - Smallpox originated from cows, maybe even African cows
  - Africans had come up with a sort of vaccination for immunity
- Native Africans also had antibodies for Malaria
  - Overwhelming European settlers
  - Their civilization evolved to avoid this sort of disease; they settled in high and dry locations
  - Small communities, spread out over vast areas→ limit the levels of transmission
- Europeans settled near water, moist places that were crowded by mosquitos
  - Thousands died
- Africa had vast reserves of natural resources (copper, gold, diamonds)
  - Democratic Republic of the Congo, Belgiums made them go to work mining copper
  - Burning their homes
  - Abandoned their way of life, perfectly adapted to the tropics
  - Built greater railroads
- Zambia
  - Shaped by colonization
  - AIDS, malaria (number one killer of African children under five years old)
  - Immunities to malaria no longer provide adequate protection (mutating)

## Hobbes

- Background

- Born prematurely when his mother heard of the coming invasion of the Spanish Armada, Hobbes later reported that “my mother gave birth to twins; myself and fear”
- Conquering of the colonies
- The Thirty Years’ War (1618-1648)
- Supported the Royalists in the English Civil War
- 
- Constant War
  - Conflicts immediately connected with the Reformation of the 1520s to 1540s
    - The German Peasants’ War (1524-1525)
    - The battle of Kappel in Switzerland (1531)
    - The Schmalkaldic War (1546-1547) in the Holy Roman Empire
    - The Eighty Years’ War (1668-1648) in the Low Countries
    - The French Wars of Religion (1562-1598)
    - The Thirty Years War (1618-1648), affecting the Holy Roman Empire including Habsburg Austria and Bohemia, France, Denmark and Sweden
    - The Wars of Three Kingdoms (1639-1651), affecting England, Scotland and Ireland
    - Scottish Reformation and civil Wars
    - English Reformation and Civil War
    - Irish Confederate Wars and the Cromwellian conquest of Ireland
    -
- Anticipates
  - Newton
    - “That when a thing lies still, unless somewhat else stir, it will lie still forever, is a truth that no man doubts of. But that when a thing is in motion, it will eternally be in motion, unless somewhat else stay it, though the reason be the same”
    - “Heavy bodies fall downwards out of an appetite to rest”
  - Smith
    - Self-interest is the operating principle of humanity, capitalism
  - Darwin
    - Biology is historical=Product of survival and competition
  - Nietzsche
    - Power is the goal of all life
  - Environmentalism
    - Uncontrolled self-interest will lead to ruin
  - Neuropsychology
    - Mental phenomenon are reducible to chemical motions
- Towards a Science of Life through Observation
  - All knowledge comes from experience
    - “There is no conception in a man’s mind hath not at first totally or by parts, been begotten upon the sense organs”
  - All knowledge comes from material experience



quicker mind than another, yet when all is reckoned together the difference between man and man is not so considerable as that one man can thereupon claim to himself any benefit to which another may not pretend as well as he. For as to the strength of body, the weakest has strength enough to kill the strongest, either by secret machination or by confederacy with others that are in the same danger with himself”

- 
- Math of War/Chaos
  - Equality of ability+Equality of ends (aversions/desires ie survival)+ scarcity (limited resources)=”War of all against all”
  - To this war of every man against every man, this also is consequent; that nothing can be unjust. The notions of right and wrong, justice and injustice, have there no place. Where there is no common power, there is no law; where no law, no injustice”
- State of Nature
  - “Whatsoever therefore is consequent to a time of war, where every man is enemy to every man, the same consequent to the time wherein men live without other security than what their own strength and their own invention shall furnish them with. In such condition there is no place for industry, because the fruit thereof is uncertain: and consequently no culture of the earth; no navigation, nor use of the commodities that may be imported by sea; no commodious building; no instruments of moving and removing such things as require much force; no knowledge of the face of the earth; no account of time; no arts; no letters; no society; and which is worst of all, continual fear and danger of violent death; and the life of man solitary, poor, nasty, brutish and short”
- Avoiding the State of Nature: The Sovereign
  - Mutually agreed upon coercion is the only way to bypass the war of all against all
  - “The final cause, end or design of... in which we see them live in Commonwealths, is the foresight of their own preservation, and of a more contented life thereby; that is to say, of getting themselves out from that miserable condition of war which is necessarily consequent, as hath been shown, to the natural passions of men when there is no visible power to keep them in awe and tie them by fear of punishment to the performance of their covenants”
- The Sovereign
  - The only way to erect such a common power... is to confer all their power and strength upon one man, or upon one assembly of men, that may reduce all their wills, by plurality of voices, unto one will... This is more than consent or concord... made by covenant of every man with every man, in such manner as if every man should say to ever man: I authorize and give up my right of governing myself to this man, or to this assembly of men, on this condition; that thou give up, thy right to him and authorize all his actions in like manner. This done, the multitude so united in one person is called a COMMONWEALTH; in Latin, CIVITAS. This is the generation of that great LEVIATHAN, or rather to speak

more reverently, of that moral god to which we owe, under the immortal God, our peace and defense.”

- Strength of Sovereign
  - The logic of self-preservation implies this: The sovereign must be more powerful than people are self interested
    - Implies absolute power of the sovereign since man is nothing more than pure self-interest

#### Jared Diamond and Marsh Presentation

- American polymath, diplomat (Greece), philologist, early environmentalist, geographer
- Argued that human civilization and industry have profoundly changed the natural world
  - Observed the city temperatures in London are 2F on average warming than the countryside
- Man and Nature influenced NY state government create the Adirondack Park
- Preface
  - Human activity has the ability to change the face of the earth
    - Deforestation, for example, can lead to desertification
  - Farming and other industry have changed the environment, altered species and endangered ecological stability
  - Unstated thesis
    - Because we evolved in certain habitat, the destruction of that habitat jeopardizes our existence
  - Marsh’s thesis is in opposition to the prevailing view that God’s kingdom of nature is beyond the effect of simple human influence
- “Natural Advantages of the Territory of the Roman Empire”
  - The Roman Empire succeeded because of the natural physical advantages of the Mediterranean region which “enjoyed a healthfulness and an equability of climate, a fertility of soil, a variety of vegetable and mineral products”
  - Europe, Western Asia, Libya had natural advantages that meant work “was nowhere else rewarded by so generous wages”
  - “The luxuriant harvests of cereals that waved on every field from the shores of the Rhine to the banks of the Nile, the vines that festooned the hillsides of Syria, of Italy and of Greece, the olives of Spain” gave this area a distinct advantage
- “Physical Decay of the Territory of the Roman Empire, and of other parts of the Old World”
  - The Mediterranean basin lost its generous fertility due to intensive human activity and population growth
  - Evidently, the environmental decline is correlated with political decline
- “Causes of this Decay”
  - Natural and geologic forces
  - Man Made effects from exploitation, war, tyranny and ignorance (greed?)
    - Roman civilization was characterized by violence, despotism, fraud and extraction of riches from people and from the natural world
- “New School of Geographers”

- Enlightenment geographers showed how essential environmental conditions are to human development
  - “External physical conditions and especially the configuration of the earth’s surface, and the distribution, outline and relative position of land and water, have influenced the social life and social progress of man”
- Reaction of Man on Nature
  - Humanity changes the face of the earth and so this new earth then influences humanity
  - The relationship is mutual and dynamic
- Observation of Nature
  - All care for the environment and our survival in it arises from observation, from being sensitive to the world around us
- Jared Diamond, 83
  - Geographer, historian, anthropologist, ornithologist
  - Argues that Eurasian peoples conquered or displaced Native Americans, Australians and Africans, instead of vice versa because of features of the Eurasian continent. It was not due to biological advantages of Eurasian peoples
- Guns, Germs and Steel
  - Agriculture and other ideas also spread faster in Euroasia because it’s major axis East-West along a similar latitude, meaning a similar climate so crops, animals and ideas could move more easily across Euroasia than through the Americas or Africa where the major axis is North-South
- Progression of natural advantage
  - Argument from causation
    - 12K years ago the Fertile Crescent had the most suitable climate, plants and animals for human habitation
      - Goats, cattle, sheep, cows
        - Provide food, clothing, labour
      - Barley, wheat
        - Grows abundantly, hardy, nonperishable
    - 9K years ago climate change led to drought in the Middle East
      - Hunters gathered survived by staying close to water resources in order to acquire food without traveling, people began farming
    - 8K years ago farming becomes so successful that population growth leads to an environmental collapse
    - 7K years ago, the people of the Middle East take their animals and crops to the east and west
      - In Europe they hit the jackpot

Hi Dr. Lauer,

I’m just writing to you to let you know how much I loved and appreciated your class. I think in these times, life is a little more bleak than usual and little things can go a long way so I figured I wouldn’t let these appreciative thoughts be just thoughts and I would write to you directly :).

I'm a biotechnology student specializing in environmental engineering and while I've always found STEM classes interesting (and I love that I'm going to be playing a role in environmental harm reduction in the future), I've always been really passionate about history and philosophy but, seeing as my program allows for negative electives, I've only really taken STEM classes to date. I'm sure you know the difference

PS-I don't know if you know of the Youtube channel PhilosophyTube, but I think you would really like it!