



# **STUDYRESOURCES**

## **DISCORD**

### **AP EXAM 2020**

### **Notes**

**<https://t.me/studyresources3>**

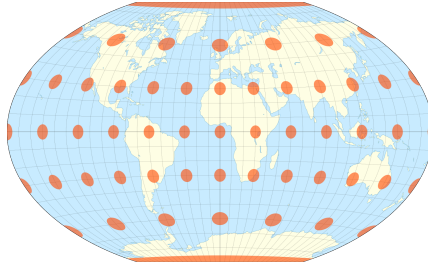


## Unit 1: Thinking Geographically

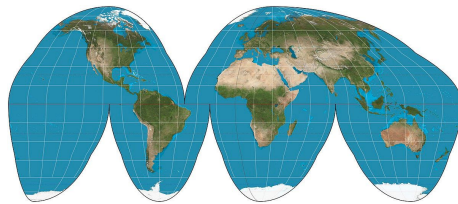
### 1.1: Introduction to Maps

- Map Projections

- Winkel Projection: Relative size isn't distorted, but the land areas are much smaller due to the majority of the space being allocated to the oceans. Areas toward the North and South Poles (Greenland and Australia) become more distorted but are sparsely inhabited



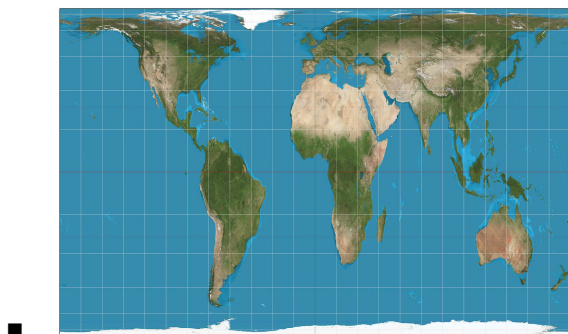
- Goode Homolosine Projection: Separates the Eastern and Western Hemispheres into two pieces (interruption). Gives more prominence to the landmasses



- Mercator Projection: Used for navigation because easiest to plot direction; accurate shape and direction, however increased distortion as distance from equator increases (bulged Greenland and Antarctica, as well as N. Hemisphere bias)



- Gall-Peters Projection: accurately depicts areas (plural of area), but results in shape distortion meaning difficulty when navigating; focuses more on land area accuracy; shows southern hemisphere as larger than northern (more accurate); areas near the poles are stretched horizontally



- Types of Maps

- Isoline Map
- Dot Distribution
- Choropleth Map
- Graduated Symbol Map
- Cartogram
- Scale in Maps:

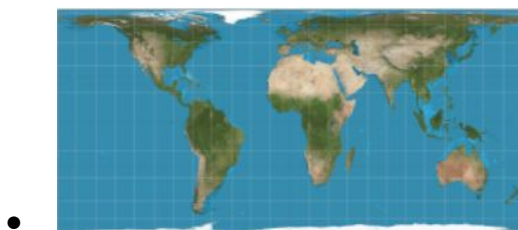
- Map Projections:

- Map Projections distort in some way, the shape, area, and/or distance of a place.
- Major Map Projections

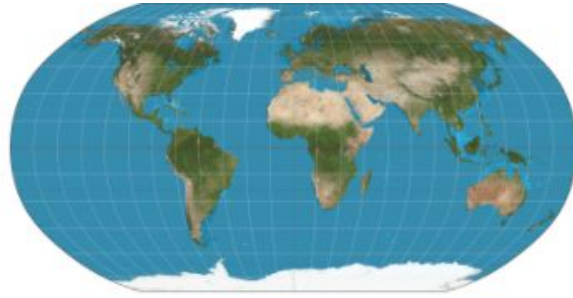
- Mercator



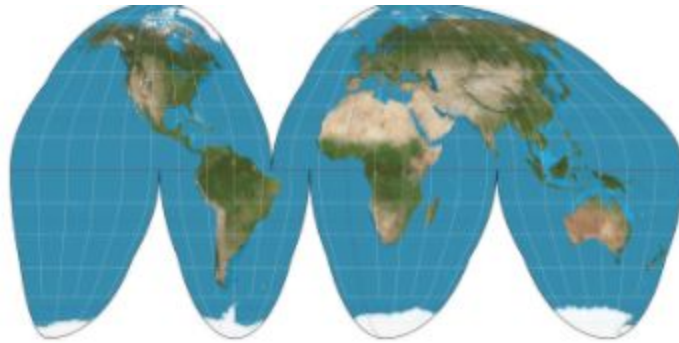
- Gall-Peters



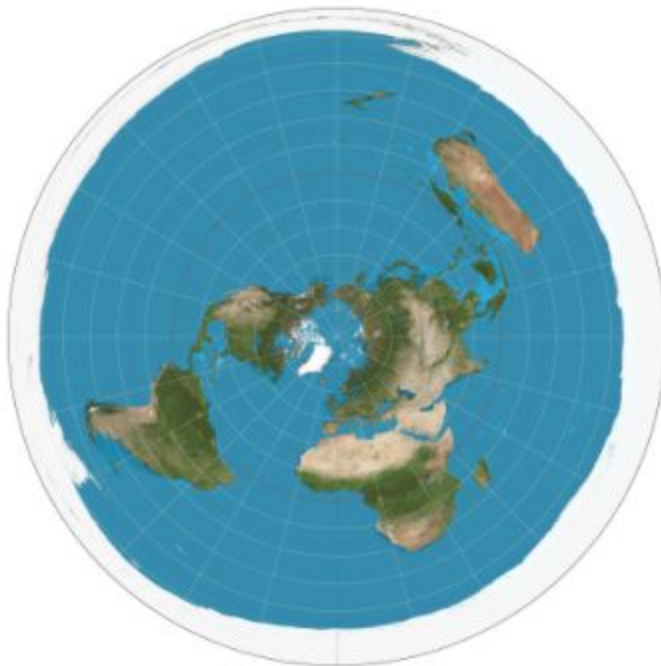
- Robinson



■ Goode Homolosine



■ Polar



- Types of Maps
  - Reference Maps
    - Physical Map

- Used to show landforms, such as deserts, mountains, and plains



- Political Map

- Used to show political items, such as boundaries, capitals, etc

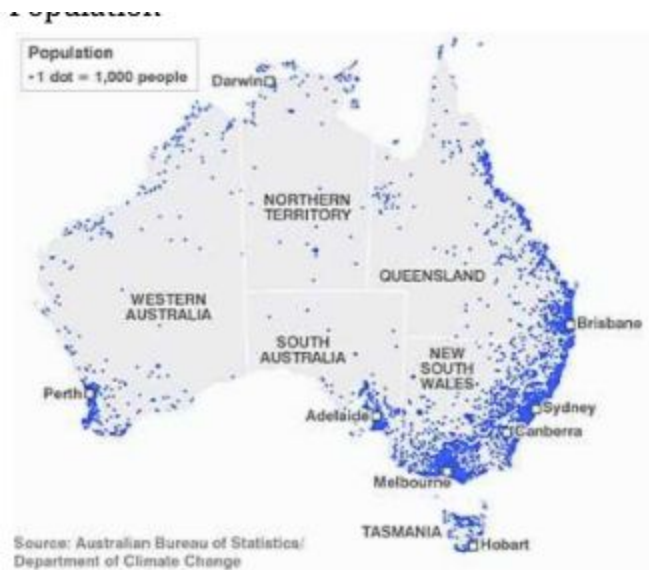


- Thematic Maps

- Dot Map

- Uses dots to show the density of a feature, typically used with Population





- Choropleth Map

- Areas of a place are shaded in proportion to the variable measured. COLORS!



- Graduated Symbol Map

- Uses symbols of different sizes to represent the numerical values of a variable.



- Isoline Map

- Lines are drawn to places that share a common value



- 
- Cartogram

- Distorts the map to show how dense a variable is in certain areas



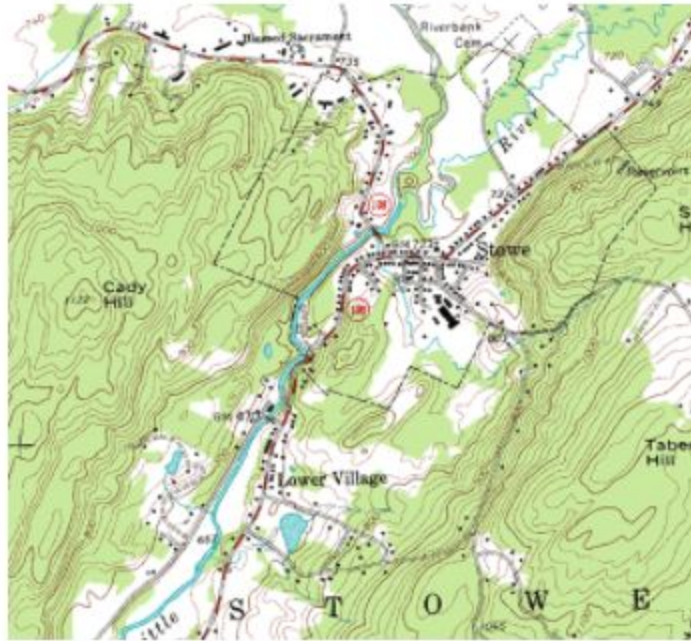
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- Contour Map

- Elevation through contour lines



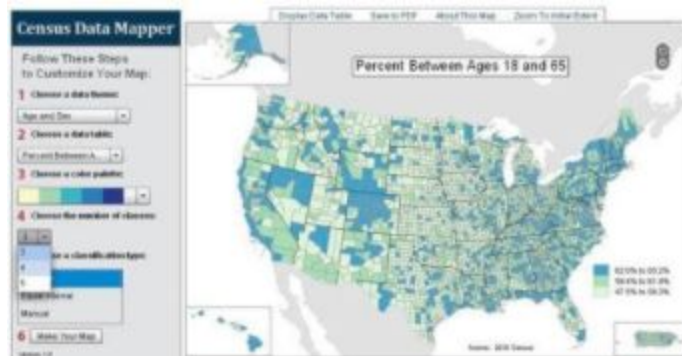
- Topographic Map

- Elevation (Large Scale) which includes man-made features



- Census Map

- A map that reflects Census data



- Toponyms

- A toponym is essentially a place name for a certain area. It can influence how people interpret the place.
- Types of Toponyms
  - Descriptive
    - Describe the landscape
      - Eg. Rocky Mountains
  - Associative
    - Associates a place with something that is located there



- Eg. Mill Valley, CA
- Commemorative
  - Honors a person
    - Eg. Stalingrad, USSR

## 1.2: Geographic Data

- NTD !!!
- Possible inclusions: data gathering, methods of geographic data collection, GIS, satellite navigation, remote sensing, online mapping and visualization, the occurrence of spatial information (field observations, media, travel, interviews, landscape analysis)

## 1.3: The Power of Geographic Data

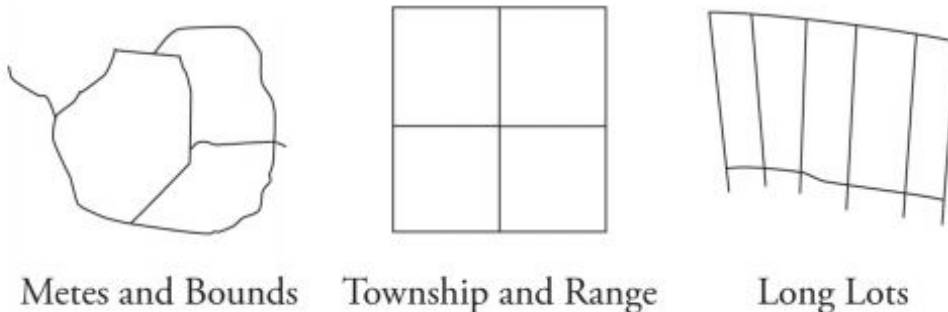
- NTD !!!
- Possible inclusions: effects of decisions from geographic information, how data is used for decision making purposes

## 1.4: Spatial Concepts

- Space (many definitions)
  - Has many definitions and is more of a concept
  - Entire or sections of the surface of the Earth
  - An area without significant meaning to humans
  - Activity Space
    - The areas where people move or travel during the course of their daily activities
- Place
  - An area of space with human meaning or importance
  - Sense of Place
    - The attitudes and feelings that individuals hold about a place
- Location
  - Absolute Location: a point or place on the map using coordinates such as latitude and longitude
    - Lines of Latitude measure distance north or south of the equator
      - Run around the earth and are parallel
    - Lines of Longitude measure distance east or west of the Prime Meridian
      - All lines converge at the poles
  - Relative Location: location of a place relative (compared to) a known place or geographic feature
    - Ex. East of Washington D.C.
- Distance
  - Measure of amount of space between two points
  - Absolute Distance: distance between two places measured in linear units (miles, km)
  - Relative Distance: distances measured in anything but linear units (usually time)
    - Relative distance is also the measure of how socially, culturally, and economically related two points are
      - Ex. Texas and Cuba are in absolute distance, but quite far in relative distance; in their beliefs, culture, government and economy

- Farther absolute distance typically means farther relative distance (but not always)
- Distance Decay
  - The farther places are away from another place, the less interactions they will have
  - Tolber's law
    - States that all places are related, but closer places are more related than farther ones
  - Friction of Distance: longer distances between points inhibit interaction between them
- Space-Time Compression
  - Decreased time and relative distance between places
  - Caused by technology that allows for faster transportation and communication (such as planes and the internet)
- Pattern
  - Spatial Patterns
    - Cluster: things grouped together on Earth's surface
    - Growth pole: clustering around a central point (benefits of agglomeration)
    - Random Pattern: no reason for the distribution of spatial phenomenon
    - Scattered: objects that are normally ordered but are dispersed
    - Linear: objects in a straight line
    - Sinuous: objects in a wavy, sinusoidal shape
  - Land Survey Patterns
    - Dividing and bounding of property and political boundaries
    - Metes and Bounds
      - Used up to the 1830s in Europe and North America
    - Township and Range
      - Geometric properties based on longitude and latitude
      - Formed from accurate ways to discern longitude and latitude
    - Long Lot
      - Narrow frontage along a road or river that runs far back
      - Typically found in French or formerly French areas (Quebec, Louisiana)

### **Land Survey Patterns in North America**



#### 1.5: Human-Environmental Interaction

- Sense of Place
  - Attitudes and feelings that individuals hold about a place

- Sequent Occupancy
  - Succession of groups and cultural influences throughout a place's history
  - There are often place-specific cultures, societies, politics, and economies
- 3 types of interaction: to adapt, to depend, to modify
  - To adapt: how humans change their own practices to adjust to the environment
    - eg. heating or cooling their houses, building tools
    - often goes hand-in-hand with modification
  - To depend: how humans rely on the environment to provide them with resources
    - eg. timber, minerals, oil, water, crops
  - To modify: how humans change their environment to suit their needs
    - eg. building dams, drilling wells, clearing land
    - can have positive or negative effects on the environment
- Land use: how humans modify their environment into built settlements
  - 6 types: recreational, transport, agricultural, residential, and commercial
  - Sustainability: use of the Earth's natural resources in ways to ensure resource availability in the future
    - renewable source: produced in nature more quickly than human consumption
    - non-renewable source: produced in nature slower than human consumption
- Environmental Determinism: view that the physical environment, rather than social conditions, determines culture
  - Theory that aspects of physical geography (e. climate) influenced psychological mindset of individuals, which in turn defined the behavior and culture of the society
    - eg. tropical climates supposedly caused laziness, relaxed attitudes and promiscuity
- Possibilism: humans are the primary determinant of culture
  - The idea that the environment can limit some human development, but people will be able to adapt
    - eg. the industrial revolution let people make the best of their resources to develop society
    - this theory is favored by geographers over determinism

## 1.6: Scales of Analysis

- Map Scale
  - Absolute Scale: ratio of distance on a map to distance in the real world
  - Relative Scale (scales of analysis): amount of detail included in the map and size of locations and items
    - Level of Aggregation: how much detail is lost through grouping of data on a map
      - Eg. a map of the world can not show every single square inch of land, things must be interpolated to fit
  - Large Scale:

- This ratio tends to be closer to a 1:1 Ratio, than a 1:1,000,000 ratio, and so, provide greater detail than its counterpart, the Small Scale.
- Maps are of smaller areas, such as a town or city.
- Small Scale:
  - This ratio tends to be closer to a 1:1,000,000 Ratio, than a 1:1 ratio, and so provides fewer details, when compared to its counterpart, the Large Scale.
  - Maps are of larger areas, such as a state, country, continent, or the world

### 1.7: Regional Analysis

- Formal Regions
  - An area of bounded space that possesses some homogeneous characteristic or uniformity
    - Across the region, there is at least one thing that is the same everywhere in the region
      - Ex. growing corn, speaking english,
    - Linguistic region: everyone within region speaks the same language (but can still be culturally different)
- Functional Regions (nodal regions)
  - Areas that have a node of activity or central place that is a point of origin or has practical purpose. Influence of the point decays through distance
    - Ex. all people within a certain area use a particular airport, mall, gas station, school
- Vernacular Regions
  - Based on the perception or mental map of the region's inhabitants; may not be an actual incorporated area

### Unit 2 AP HUG: Population and Migration Patterns and Processes (Done by Song and Edgy Asian)

#### Models you need to know:

- Population Pyramids
- Demographic Transition Model
- Epidemiologic Transition Model
- Ravenstein's Laws of Migration
- Zelinsky Model of Migration Transition
- Malthusian Theory of Population Growth
- Gravity Model

#### Key Concepts:

- Describing the population
  - **Demography:** the study of the population characteristics
    - Eg. fertility, gender, health, and age
  - **Overpopulation:** too many people compared to resources
    - Some places in the world are also considered underpopulated in terms of resources
  - **Underpopulation:** A situation where there are not enough people living in an area to fully utilize the resources and capabilities there.

- Ex: The real reason for Australia's low population is fertility rates, remoteness, and immigration. These factors cause Australia to be an under-populated state.
- **Ecumene:** the portion of Earth's surface permanently occupied by human settlement.
  - Geographers use the term to refer to land permanently occupied by human beings as distinguished from land not inhabited at all or temporarily inhabited.
- **Malthusian theory:** Theory predicts that if the population keeps growing at its rate, it will eventually outpace the production of food and cause famine.
  - Not many believe in his theory, as innovation and industrial
- **Neo-Malthusian:** States that people and their food sources should be controlled to prevent overpopulation and food shortage.
  - The revised theory is based on the Malthusian theory, and still believes that overpopulation is going to be an issue.
- **Sustainability:** the ability to use resources for a society's needs, but leaving enough for future generations to continue using it.
  - Most ways of extracting resources are unsustainable, and will eventually run out over time
  - The UN has developed 17 sustainable goals of development.

- **How people are distributed**

- **Age distribution:** the frequency of different ages or age groups in a given population.
  - More young people living in an ocean-side area and showing where the different age groups are in that area.
- **Carrying capacity:** the largest number of people that the environment of a particular area can support
  - food availability, water supply, living space, and environmental conditions
- **Mortality and Natality:** The death rate of a population/ratio of live births in an area to the population of that area (per 1000 people per year)
  - advocacy of population control programs to enough resources for current and future populations.
- **Sex ratio:** The number of males per 100 females in a population
  - shows the ratio between Men and Women in a state.
- **Infant mortality rate (IMR):** The total number of deaths in a year among infants under one-year-old for every 1000 live births in a society
  - LDCs that don't have good healthcare generally have a higher IMR
- **Dependency ratio:** The number of people under the age of 15 and over the age of 64, compared to the number of people active in the labor force.
  - Ex: Japan has a lot of elderly people in its population demographics, thus they have a higher dependency ratio than some other countries.

- **Population growth and decline over time and space**

- **Demographic Transition model:** This is a model that is based on historical population trends of two demographic characteristics – birth rate and death rate
  - Based on historical population trends of countries.
  - Birth rate and death rate are two main characteristics



- Certain events, like the industrial or medical revolution, influenced changes in the model during certain stages.
- Shows a cycle that countries will undergo in stages as they develop economically.
- **Disease diffusion:** This is how a disease is transferred and diffused to other places and to other people.
  - Can be mappable to show how diseases are spread and where the epicenter may be.
- **Rate of natural increase:** This is a statistic calculated by subtracting the crude death rate from the crude birth rate of a given region.
  - Also called NIR
  - Factors in both CBR and CDR
  - Shows the total net growth of a population's demographics
  - High NIRs are not always good, and are very common in developing countries.
- **Zero population growth:** Also called (ZPG), this happens when there an equal amount of deaths and births in a society, which causes a flatline in total population growth
  - NIR of around ~0.2
- **Epidemiological Transition model:** Model that shows the stages of how people die to diseases.
  - Includes how medical innovation can reduce the amount of fatalities of a disease.
  - Shows how less-developed countries may suffer from diseases that kill many (ie: Cholera, Typhus, Measles, Malaria, Polio).
  - Shows how more-developed countries won't suffer from many diseases, but can still suffer from chronic illnesses like (AIDS, Alzheimers, Cancer).
- **Doubling time:** The time it takes for a population to double in size/value.
  - NIR and CBR are very important in this
  - Smaller countries can double their population easier and faster than in larger countries.
- **Population:** The number of people living in a defined area
  - It can be big or small depending on country size, resources, push and pull factors, etc.
- **Standard of living:** The degree of material comfort or wealth associated with a person's living status
  - Normally wealthier countries with higher GDPs will have a better standard of living
  - Less developed states will have a lower standard of living.
- **Demographic trap:** When a country has a large population and gets stuck in stage two

## ● Migration

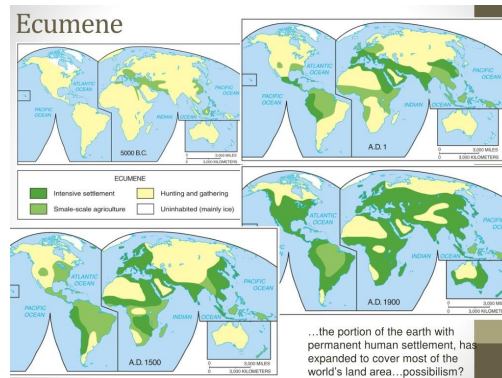
- **Migration:** The movement of people to other locations.
  - People may choose to migrate due to a variety of factors.
- **Push factors:** Factors that will force or encourage others to move to other locations.
  - ie: War, famine, political instability, inflation, corruption.
- **Pull factors:** Factors that encourage others to move to a new location
  - ie: Better job opportunities, improved living standards,
- **Chain migration:** A social process where people will immigrate to a new country, and bring their whole family there too.
  - Ex: Asian immigrants in the 1800-1900s, where whole families ended up moving across the sea.
- **Refugee:** A person who has been forced to leave their country in order to escape war, persecution, or natural disaster.

- Can also be called IDP (Internally displaced people)
- They start on foot or bicycle (without motors)
- They take only what they can carry with them
- No proper documents
- In some severe cases many supranational organizations like the U.N. will help aid refugees find homes and food.
- **Step migration:** A type of migration that occurs in steps, or phases
  - Ex: A family from North Korea will have to escape to China first, then Japan to lastly transfer to the US.=
- **Transhumance:** The action or practice of moving livestock from one grazing ground to another in a seasonal cycle, typically to lowlands in winter and highlands in summer.
  - This is a farming tactic used by pastoral nomads, who will move their flocks to subsist on different parts of land at different times of the year.
- **Transmigration:** This refers to the mass movement of a human population from one location to another
  - Ex: This was a scheme created by the Indonesian government to ease overpopulation in the capital of Java by moving people from the “core” area to the less populated areas of Indonesia
- **Internal migration:** is human migration within one geopolitical entity, usually a nation-state.
  - People tend to travel this way for education and for economic improvement or because of a natural disaster or civil disturbance.
  - Interregional migration: Migration from one region to another within a state.
- **Intervening opportunity:** An opportunity that shows up before someone can finish migration
  - Ex: an oasis in the middle of a desert someone is traveling through
- **Intervening obstacle:** This is an environmental or cultural feature that hinders migration.
  - This can derive from the terrain, like mountains or desert, or it could be political features such as isolation, censorship, etc.
- **Migration patterns:** the movement of people from one place in the world to another.
  - Migratory movement is the movement of people from certain places to other places. This can be mapped spatially and can be used to analyze the features or attributes of a state.
- **Intercontinental:** Migration movement between continents,
  - People may move to new continents for better job opportunities, or to escape the bad living conditions that they have.
- **Distance decay:** an idea that states that the amount of attraction to something plummets as distance increases.
  - If you live in a rural area, it's likely that you travel to a bigger city 100 miles away even if it offers bigger and better goods and services.
- **Ecotone:** transition area between biomes where communities meet and integrate

## Unit 2: Population and Migration Patterns and Processes (done by lilstinkstink)

- Describing Population
  - Demography: the study of the population characteristics
    - Eg. fertility, gender, health, age

- Overpopulation: amount of resources is unable to support population
  - Some places in the world are considered under populated in terms of resources
- Ecumene: the portion of Earth's surface occupied by permanent human settlement



- More people are alive today than at any other time in human history. ~7.5 billion
- The world's population increased at a faster rate during the second half of the 20th century than ever before.
  - WHY? Kids were more likely to survive birth due to better sanitation and the medical revolution. (LOWER IMR (infant mortality rate))
- Virtually all pop growth today is in LDCs (less developed countries)
  - MDCs (more developed countries) have lower birth rates that create a low NIR (natural increase rate). Lots of population growth in countries like the USA is from immigration

## 2.1: Population Distribution

- 4 Main Population Clusters (in order of population size)
- 1. East Asia
  - China, Japan, Taiwan, Korean Peninsula (N and S)
  - 25% of world's population (>1.5 billion)
  - China is the world's most populated country (>1 billion), this is where most of the East Asian population is
- 2. South Asia
  - Mainly India, also Pakistan and Bangladesh
  - ~slightly less than 25% of world's pop (~1.5 billion)
  - India is 2nd biggest in the world \*(but will overtake China soon due to higher birth rates)
- 3. Europe
  - 3rd largest pop cluster with 1/9th of the world's people (700mil)
  - Unlike other areas of the world, most people in W Europe live in cities
  - Largest within this cluster is Germany/France/UK

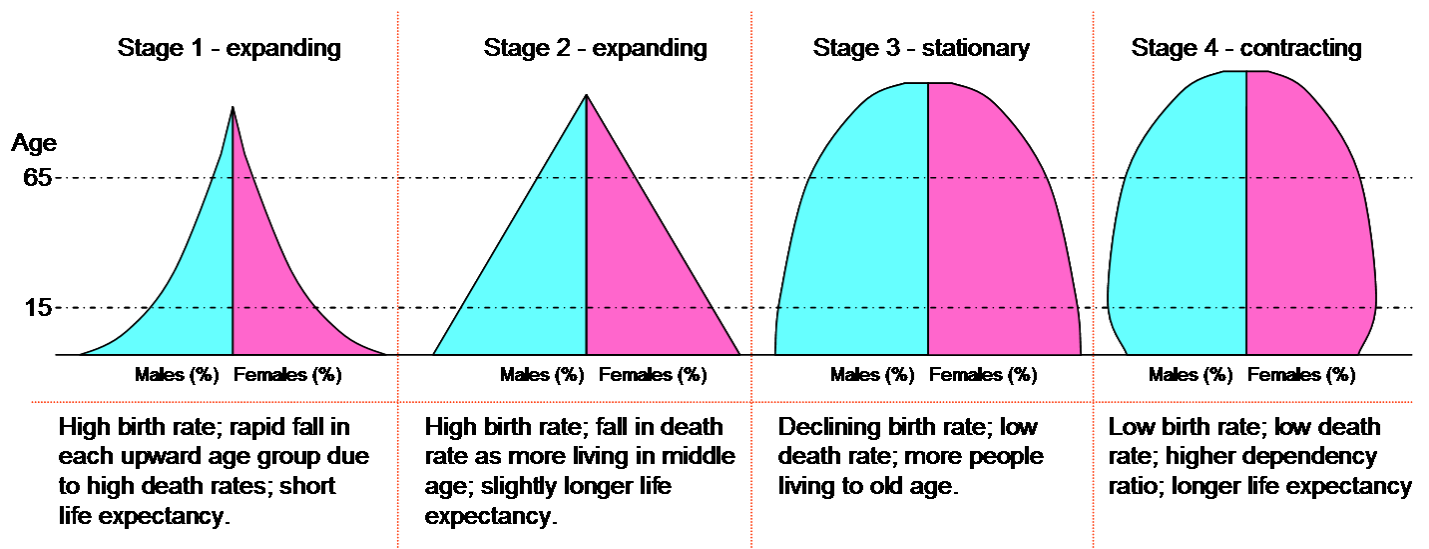
- 4. Southeast Asia
  - Indonesia is world's 4th largest country (largest Muslim pop)
  - 600 million total in SE Asia (approx 2x bigger than US)
- Other important pop clusters (outside of 4 main)
  - NE USA (from VA to NY, then over to Chicago)
  - W. Africa (mostly Nigeria)
  - About 4% of the world lives in these 2 areas
- Do people live in rural or urban areas in population clusters?
  - Western Europe and n america - mainly urban/city dwellers. (less farming allows for this)
  - Africa and asia - mainly rural, agricultural dwellers. Farmers.
- Where do people not live?
  - Water is 71% of the earth
  - then , people generally avoid; (these places are usually poor for agriculture)
    - Dry lands - ex deserts
    - Wetlands - too much rainfall, some places near the equator
    - Cold lands - the poles
    - Highlands - extreme mountains

## 2.2: Consequences of Population Distribution

- Density is affected by population distribution
- 3 Types of Densities
  - Arithmetic density - total number of people divided by the total land area (AKA population density)
    - Not the best indicator of what is happening in a country because it can vary within a country and counts for all land, not just arable (land suited for farming), it also only shows people compared to land, and not any other data
  - Physiological density - amount of people per unit of arable land
    - Better for geographers
    - The higher the number in the density, the more people an area of land has to support
  - Agricultural density - the number of farmers per the amount of arable land
    - Higher agricultural density shows lower levels of development
      - MDCs - have a lower agricultural density because of better technology allowing for fewer people to farm.
      - LDCs - more people farm for a living and for food (subsistence farming)

## 2.3: Population Composition

- 1. Age distribution - how many young people vs old people
  - Dependency ratio: # of people too young or old to work (15 and under and 65 and up) compared to people in productive years
- 2. Sex distribution - how many males vs. females
  - Sex ratio: # of males per 100 females
- Population Pyramids
  - A population pyramid is a bar graph showing a place's age and sex composition.
    - Shape of the pyramid is determined mainly by the CBR
    - Corresponds to the Demographic Transition Model (DTM)



## 2.4: Population Dynamics

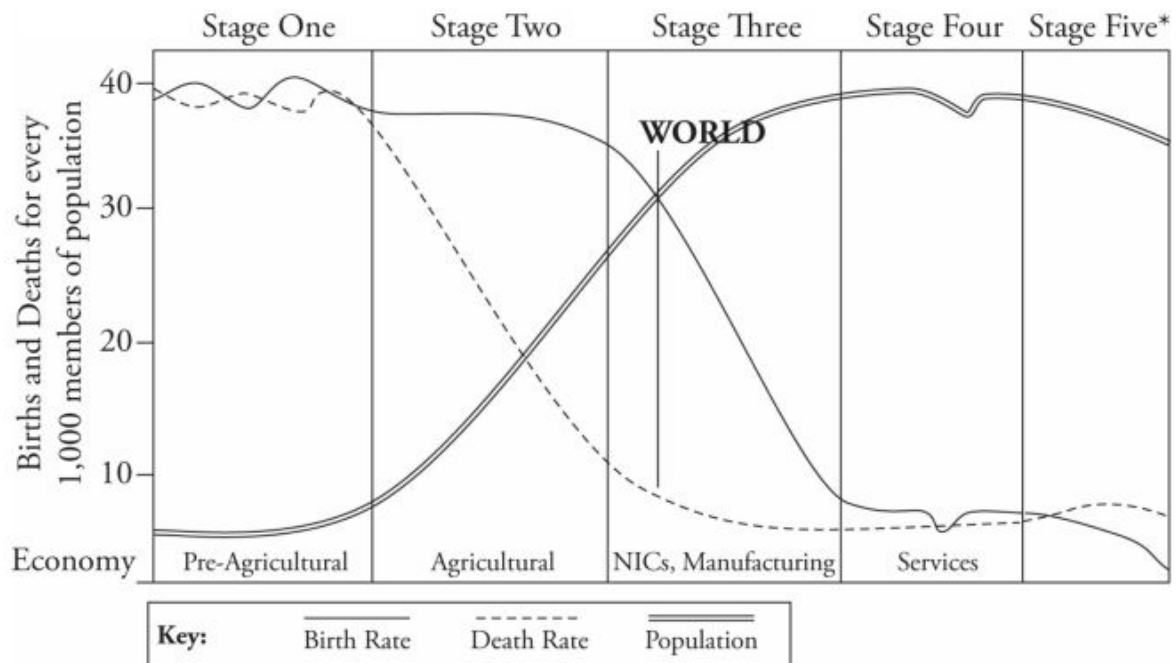
- Measuring Population Increases
  - Crude Birth Rate (CBR)
    - The number of births per 1,000 in a population
  - Crude Death Rate (CDR)
    - The number of deaths per 1,000 in a pop
  - Natural Increase Rate (NIR)
    - The % by which a pop grows in a year
    - $(CBR - CDR) / 10$
  - Doubling time
    - Number of years needed to double the population
- Natural Increase Rate
  - What is the world NIR?



- ~1.2%
- Doubling time is around 54 years at this rate
- It was 2.2% at its peak in 1963
- The world's NIR is decreasing, but it is still positive
- It exceeds 2% in places like the Middle East and Sub-Saharan Africa
- Fertility
  - Total Fertility Rate (TFR) - average number of children a woman will have in her child bearing years
    - The world's is 2.6
    - MDCs - below 2
    - LDCs - some places exceed 6
- Mortality
  - Infant Mortality Rate (IMR) - annual number of deaths of infants under 1 year of age, compared to live births
  - Life expectancy- at birth - measures the average number of years a newborn can expect to live at current mortality rates

## 2.5: The Demographic Transition Model

- The Demographic Transition Model
  - A model that describes population change over time and places countries in different stages of population growth

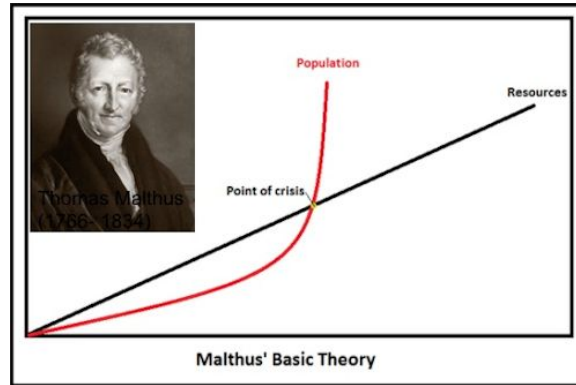


\*Note that Stage Five is theoretical.

- Stage 1: Low Growth
  - High birth rate, but high death rate
  - hunter/gatherers - NIR = zero
  - Agricultural revolution resulted in a very small increase
  - There are no countries in this stage today
- Stage 2: High Growth
  - Industrial Revolution - main contributor to population growth in Europe and US. began around 1750-1800
  - Medical Revolution - contributed to starting stage 2 in Africa and Asia
    - About 1950, vaccines and other medical supplies diffused from US/Europe to these areas
  - This leads to lower death rates, but still high birth rates, causing a population boom
  - Some countries with too many people can get stuck in this category (demographic trap)
- Stage 3: Moderate (slow/steady) Growth
  - CBR drops sharply in this stage as the population urbanizes
    - People are having less children
  - 1900-1950 the countries in W Europe and the US moved into stage 3
- Stage 4: Low Growth
  - Low death rates and low birth rates
  - Zero population growth (ZPG) or ~2.1 TFR
  - US and many European countries are currently in this stage
  - Women enter the workforce, increased usage of birth control leads to lower birth rates
- Stage 5: Declining Population
  - This is a new stage that has only emerged recently
  - This happens when the death rate exceeds the birth rate
  - TFR drops below 0
  - Germany, Japan, Italy, Greece, Russia, are examples

## 2.6: Malthusian Theory

- In 1798 Thomas Malthus wrote *An Essay On the Principle of Population*.
  - This was a time when population was increasing much faster than food supply. He wrote about this in the essay, and his basic theory states;
    - Population increased geometrically (exponentially)
    - While food supply increased arithmetically



- Neo-Malthusians are people still influenced by Malthus today. They believe;
  - Many LDCs have expanded their food production, but they also have more poor people than ever before.
  - Not only are we using all of the food supply, but we are also outstripping the energy supply and other resources like clean air and fuel.
- Major criticisms of Malthus' Theory
  - 1. He had a pessimistic viewpoint
    - Actual food production has been much higher than Malthus predicted. He thought that the world's resources were fixed instead of expanding, but humans can impact this (possibilism). He failed to consider technological innovation (GMOs, machinery, pesticides, herbicides).
  - 2. Contemporary analysts believe population growth can be positive
    - Pop. growth can trigger economic expansion if needs of the population are adequately met.
  - 3. Marxist critique
    - Believe there are plenty of resources in the world - they just need to be distributed better

## 2.7: Population Policies

- Countries can choose to enact pro-natalist or anti-natalist policies
  - Anti- natalist policies are created to lower CBR in countries that may be facing overpopulation. India and China have both done this.
    - China's One Child Policy (adopted in 1980) was a strict anti-natalist policy designed to lower NIR by deeply encouraging couples to only have one child through benefits and education
    - India was the first country to embark on a national family planning program in 1952. The government established clinics, education, contraceptives, and legalized abortions. They also set up a sterilization program in 1970 to curb population growth.
  - Pro - natalist policies are set up to encourage population growth and make TFR and CBR higher. Its primary goal is to increase the rate of population growth to prevent the economic and social welfare problems that arise with an aging population.

- These are happening in stage 5 DTM countries, and countries with low CBR, such as Japan, where there is a population decline, and a high elderly dependency ratio.
- Eugenic population policies are ones where countries favor the population of one racial or ethnic group over others.
  - These were popular in Europe in the early 20th century.

## 2.8: Women and Demographic Change

- Declining birth rates are attributed to;
  - Economic Development: education and health-care programs, increased work and education for women
  - Distribution of Contraceptives: rapidly diffusing around the world. In LDCs demand is greater than supplies.
- Why do women have many children in some areas?
  - Some women do not have many rights, so more children = higher status
  - Men see it as a sign of virility
  - Religions or political reasons
  - More help is needed on subsistence farms
  - In areas with high Infant Mortality Rates (IMR), women have more children because some of them die at a young age

## 2.9: Aging Populations

- In more developed nations, tend to have a higher elderly population
  - Less disease and famine, so people are living longer
  - Over time results in less children being born (DTM)
- Having aging populations results in higher dependency ratio if not enough children are being born
  - Smaller amount of people must support the larger elderly population
  - Can result in a slow negative NIR (natural increase rate)
- Population cohort: a population of an age category
  - Baby boomers (boomers): 1946-64
  - Baby bust: 1960s-70s
  - Gen X: 1965-80
  - Gen Y: 1980-2001 (also called shadow boomers)
  - Millennials/Gen Z: 2001-present

## 2.10: Causes of Migration

- Push Factors: reasons that push people away from their homes/where they started
  - Economic issues: not many economic opportunities available, so look for better work that may only be found elsewhere

- Ex: movement from rural Crahina to urban factories; getting away from the rural lifestyle that doesn't pay as much
- Political issues: if government is unstable, can result in fear for the future; also unfair treatment (government is screwing you over)
  - Ex: Syrians fleeing to Jordan and Lebanon due to the Civil War and fight between the government and rebels
- Inequality and instability: leave due to discrimination or fear for your life
  - Ex: Immigrants moving to the United States from Central America due to gang violence
- Low carrying capacity: area where one lives doesn't have enough resources to support the amount of people there; results in moving to find an area that can better support them and their family
  - Ex: In Egypt, most are concentrated along the Nile rather than elsewhere due to fertility. This results in the outside areas having a lower carrying capacity, so they move towards the river.
- Pull Factors: reasons that pull people towards a certain place as a desired area for migration
  - Economic opportunities: more jobs, or better jobs, available in the new area; results in being able to better provide for one's family or quality of living
    - Ex: People moving to the United States in order to get better/ new jobs. This was largely seen during the Waves of Immigration in the late 19th and early 20th century.
  - Government stability: if coming from unstable background, seeking this out means being able to trust the government and not fearing a coup
    - Ex: Central American immigrants to the United States
  - Better public works (wasn't sure what to call this): disease is less prevalent thanks to better healthcare; housing more stable than where lived previously; less uncertainties in life about how may not be able to eat
- Economic: people move in search of economic opportunity; can lead to chain migration
  - Generally leaving family behind, while moving to other countries or regions
  - Some areas may limit citizenship of the workers moving to area
    - Guest worker program in UAE
    - Leads to workers not having same rights/privileges as others working there
  - Money made will be sent back home; may be circular immigration
  - Brain Drain: emigration of the educated/trained
    - Think US laws picking those with "better" background rather than those who may have less of an education
    - People viewed as a way to improve the country, rather than helping those who may need it

## 2.11: Forced and Voluntary Migration

- People are forced to move for many reasons (environmental, economic, cultural, and political factors)



- Forced migration: slavery, refugees, internally displaced persons, and asylum seekers
  - Usually are moving because they have no other choice to survive, or because are being taken by someone
- Voluntary Migration: transnational, transhumance, internal, chain, step, guest worker, and rural-to-urban
  - Commonly seen in stage 2 and early stage 3 DTM
  -
- Ravenstein's Laws of Migration:
  - Most migrants don't travel far
  - Migration spreads outward; emigrants leave gaps to be filled by immigrants from further out
  - Dispersion works the opposite way; emigrants push out the old inhabitants, who displace other residents further out
  - Migration produces countercurrent migration
  - Migrants proceeding a long way go to centers of commerce
  - Townsfolk migrate less than rural folk
  - Females migrate more than males

## 2.12: Effects of Migration

# Unit 3: Cultural Patterns and Processes

## 3.1: Introduction to Culture :

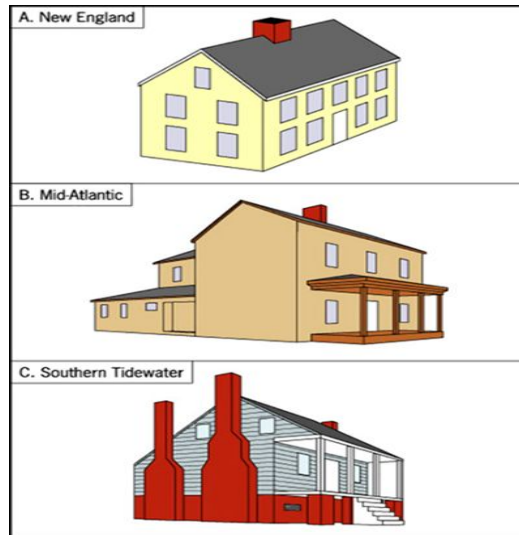
- Cultural geography: Is the study of the many cultural aspects found throughout the world and how they relate to the spaces and places where they originate and then travel as people continually move across various areas.
  - In different there will be different cultures and different customs
    - In China, there may be more people that eat rice than in Europe or in the US.
- Folk culture: A **culture** traditionally practiced by a small, homogeneous, rural group living in relative isolation from other groups.
  - Spreads slowly, unchanging, isolated, and promotes diversity.
    - Ex: In Africa, many local tribes carry on their folk culture with them, which can consist of rituals, dances, or even habits.
- Popular culture: Culture based on the tastes of ordinary people rather than an educated elite.
  - Global, wide-spread; ephemeral, appeals to many groups of people, and tends to lean towards homogeneity, and uniformity in trends.
    - Popular culture can be found in our day to day lives by looking through social media, the internet, or other forms of communication.
    - Ex: K-Pop, Fashion trends, Technology trends, Hip Hop, etc.
    - Pop culture can diffuse in a variety of ways, mostly via relocation diffusion such as travelling bands, contagious diffusion via viral trends in social media outlets, or even stimulus as certain events may set the stage for other trends to take over and diffuse.



- Cultural systems: A cultural system is a collection of interacting components that shape a group's collective identity, and includes traits, territorial affiliation, and shared history.
  - Geography and religion
    - Certain areas in the world will have different dominant religions.
  - Geography and Language
    - Language also plays a major factor in how a people's culture may be defined.
    - I.e: Chinese people usually speak Chinese. Indians speak Indian/Hindi, and Russians speak Russian.
  - Culture and society
    - The society of a group also heavily influences their culture, as it can set cultural norms, and traditions

### 3.2: Cultural Landscapes

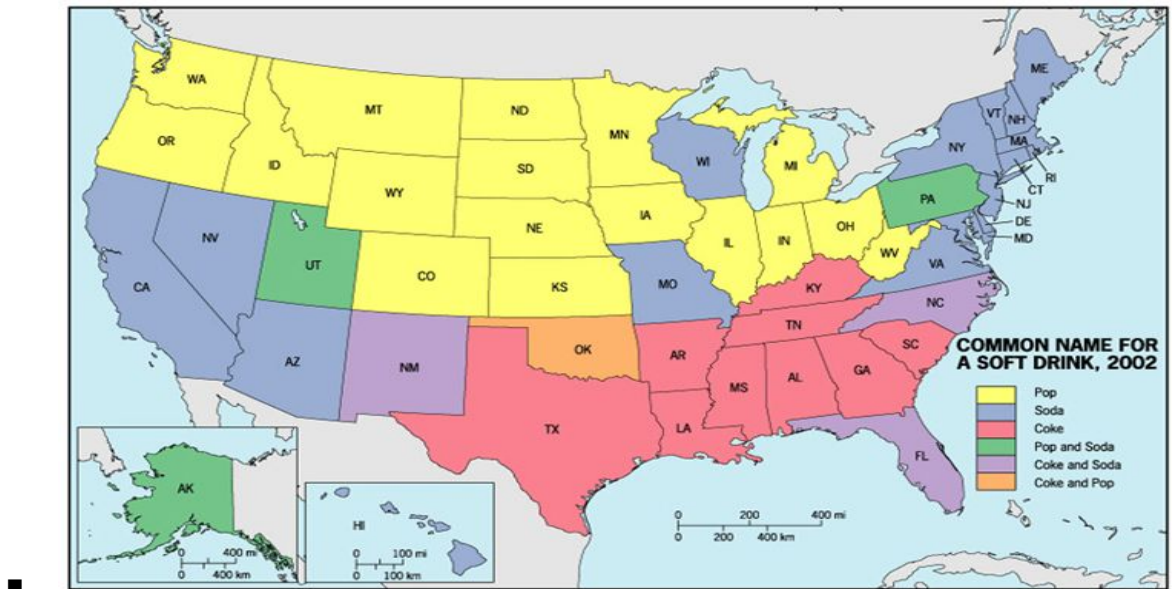
- Cultural landscape: The visible human imprint on the landscape caused by human activity.
  - Many actions can affect the cultural landscape.
    - Ex; Cutting down trees and placing shopping districts, or adding religious temples.
- Placelessness: The loss of uniqueness in a cultural landscape
  - Ex: A shopping district of a shopping mall may have placelessness as it is practically identical and similar to other malls and places. It doesn't really show any cultural or historical aspects.
  - The loss of uniqueness in a cultural landscape: The widespread distribution of businesses and products creates distinctive landscape stamps around the world.
- Attributes of cultural landscapes: These can have uniform traditions or customs.
  - I.e: the similarities and differences between New England houses, Mid atlantic houses, and the Southern tidewater houes.



### 3.3: Cultural Patterns

- Material culture: The things a group of people construct.
  - Houses, art, clothing, sports, dance, and food
- Place: The uniqueness of a location, what people do in a location, what they create, and how they create an imprint on that location.
  - Building cultural monuments, structures, could add uniqueness and diversity to the place.
  - Toponym: The name of a place
    - Georgetown, Jacksonville, New York City, Albany, etc.
- Nonmaterial culture: The beliefs, practices, aesthetics, and values of a group of people.
  - Filial piety, respect, brotherhood, polygamy, etc.
- Cultural systems: These are collections of interacting components that shape a group's collective identity.
  - These include traits, territorial affiliation, and shared history.
  - Ie: Geography, Religion, culture and society.
- Language: A set of sounds, combinations of sounds, and symbols that are used to communicate with others.
  - Many branches: Ie: Indo-European, Sino-Tibetan, Afro-Asiatic, Uralic, Germanic, Celtic, etc.
  - Governments play a large role in standardizing a language.
  - Language divergence: When a lack of spatial interaction among speakers of a language breaks the language into dialects and then new languages.
    - Large areas like Russia have a variety of dialects due to an expansive country encompassing different climates and peoples.
  - Language convergence: When peoples with different languages have consistent spatial interaction and their languages collapse into one.
    - Syncretism of two languages, may standardize the use of a language, or create a new hybrid language.
  - Some diverse countries like the US have no national language.

- Dialect: variants of a standard language along regional or ethnic lines.
  - They may have different vocabulary, slang, syntax, pronunciation, cadence, or pace of speech.

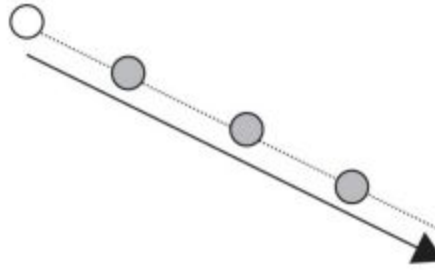


- Isogloss: A geographic boundary within which a particular linguistic feature occurs.
  - Mountain people may yodel more than people who live in valleys, or flatlands.
- Lingua franca: the language spoken in a certain area
- Pidgin: a language that borrows from many languages -- it is a hybrid that works for all people in an area
- Creole: a pidgin that becomes the primary language
- Toponymy: the study of place names

### 3.4: Types of Diffusion

- Spatial diffusion
  - Spatial diffusion: the way that things spread through space and time
    - Expansion Diffusion - spreading outward from hearth
      - Contagious Diffusion
        - Spreads from a center outwards - like a disease being spread from person to person away from its origin or ripples from a stone thrown into a pond

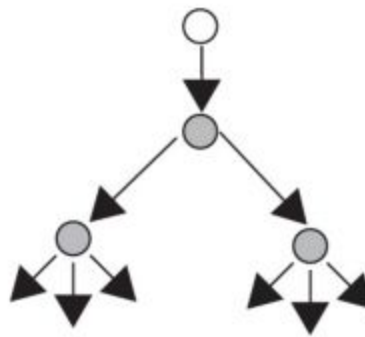
### Contagious Diffusion



- Hierarchical Diffusion

- Diffusion that follows a chain or hierarchy of places
- Most notable is cities; Spreads to large cities first (distance does not matter), then down the urban hierarchy to smaller and smaller incorporated areas

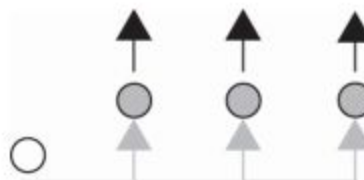
### Hierarchical Diffusion



- Stimulus Diffusion

- Spread of an underlying principle or idea, even though some characteristics have failed. A trend is adopted, but certain practices are changed to fit the culture which adopts it.
- Ex. hamburgers in India without beef, pop music, Hollywood, religion

### Stimulus Diffusion



- Relocation Diffusion



- Spread of something carried by the physical movement of people from one place to another
- Ex.
  - Catholicism was brought by the Spanish to Latin America
  - Protestantism brought from Northern Europe to US, Canada
- Hearth and Hinterland
  - Hearth is the source of an idea, crop, artifact, etc is diffused from to other areas
    - The hearths for popular culture are typically established with an idea and contagious diffusion
    - Many religions and languages all originate in certain hearths
    - Ex: Islam in Saudi Arabia, Buddhism in India, Chinese near the Yellow and Yangtze rivers.
    - Individuals also can help promote a hearth and it's popular culture
  - Hinterland is the area around a city or town, usually where only a few people live

### 3.5: Historical Causes of Diffusion

- Economic causes: Economic circumstances can influence how a culture or something is diffused.
  - Economic wealth and development can lead to foreign investments in other countries, or increased trade between many states.
    - Ex: As the Portuguese engaged in maritime trade during the 1500s, they used their economic strength to control the trade routes, while also diffusing their religion, language ,and other cultural aspects to the native people in Africa and Asia.
- Political causes: A state can sponsor the diffusion of certain cultural aspects
  - The South Korean government is helping fund K pop bands travel around the world and spread their form of music. This is hierarchical and could be contagious as the pop culture icons pick up momentum in their world tours. But nonetheless, political efforts can also drive culture and other aspects of a society to be diffused.
- Expansion of states: This event led to the diffusion of culture, religion, and just overall aspects of a society.
  - Alexander the Great conquered most of Persia, and also brought his greek traditions and culture with him. Historians call this period Hellenization.
  - Empires expanding also spread their language and religion.
    - Spanish and British Imperialism saw the expansion of Christianity and Spanish and English respectively.
      - They did this via hierarchical and relocation diffusion, as the colonial government promoted this form of cultural spread, and many conquistadors or europeans who wanted to pursue a new life in the Americas also relocated to the New world, and thus retained their culture and introduced it to the indigenous population.

### 3.6: Contemporary Causes of Diffusion

- Electronic media plays a big role in contemporary diffusion

- Much of pop culture spreads through contagious diffusion, which is reliant on social media and the news
  - Most of electronic media is in English, which has led to an increase in countries teaching English as a second language
    - This has also caused indigenous languages to start disappearing as their use is diminished in a modern society
- World processes such as globalization make the spreading of cultural ideas much easier
  - Increased telecommunications has allowed people to be more connected, which lets ideas flow faster across the globe
  - Stimulus diffusion is extremely prominent in this society, as ideas are constantly being adapted upon
    - eg. chain stores and restaurants such as Burger King and Adidas have popped up all around the world but have to adapt to the culture they serve
      - however, the same idea works in reverse, as the people in that area come into touch with more pop culture, which often leads to folk culture influence diminishing
  - Some argue that globalization reduces the impact of culture by offering everyone the same services and information
    - Also argue that globalization causes location to lose its meaning and impact as everything is the same (causes placelessness)

### 3.7: Diffusion of Religion and Language

- Hearths: origins of cultural diffusion
  - can be considered to be entire regions for folk culture ( no one knows exactly where those practices originated)
- Universalizing religions: religions that actively try to seek out new members to convert
  - Send out missionaries to bring people into religion
  - Religious practices are pretty basic so that anyone can practice them
    - eg. Christianity, Islam, Buddhism, and Sikhism
- Ethnic religions: don't actively seek out converts and generally stay to themselves
  - Practices stay close to the hearth and the religion only moves through relocation diffusion
  - Practices are more austere and require specific materials
    - Hinduism and Jainism

### 3.8: Effects of Diffusion

- Syncretism of culture: This can occur when two cultures combine beliefs and blend nicely.
  - Ex: Sikhism as a religion that derives from both Hinduism and Islam.
- Ethnic enclaves: These can form when you have relocation diffusion in a region or even chain migration.
  - Little Italy, Chinatown, Koreatown, etc.
  - These may form due to a cultural homogeneity due to a diffusion of a certain culture.

- Spread of popular ideas: New ideas like pop culture may spread quickly through many regions or places, and these effects can cause a trend to grow and may cause cultural unity within a group of people.
- Epidemiological effects: Many don't think of this, but contagious diffusion could be the spread of a virus or disease. Thus, these forms of diffusion can cause people to get sick and die, or cause economic decline.
  - Ex: Current Covid-19 Epidemic, Bubonic plague in Europe, H1N1 Virus in the world also.

## Unit 4: Political Patterns and Processes

### 4.1: Introduction to Political Geography

- States: a state is an area organized into a political unit, ruled by an established government and that has control over its internal (domestic) and external affairs.
  - Has defined territory
  - Has a permanent population
  - Country is a synonym for state
- Sovereignty: a state has this when no other state controls its internal affairs
  - A state must have this to be a state
  - In the last 50 years, the number of sovereign states in the world has increased >100.
    - This is due to decolonization and devolution
- Largest ruled countries in order of landmass
  - Russia
  - Canada
  - China
  - USA
  - Brazil
- Nations are a culturally defined group with the same past and similar goals in the future. They relate to a territory and have political goals of a nation-state.
  - Some examples of nations are Japan, Korea, France, and Germany.
- Nation State: a state where the people are largely of the same ethnicity and shared heritage/culture
  - Japan is a great example of this. 98% of people in Japan are ethnically Japanese.
  - True nation states don't exist because of globalization, all countries have ethnic diversity to some extent.
  - Some states have tried to become nation states through ethnic cleansing and/or genocide
- Stateless Nation: An ethnic group or nation that does not possess its own state and is not the majority population in any nation state.
  - Ex the Kurds in the Middle East, the Basques in Spain
  - Self determination: the concept that ethnicities have the right to govern themselves

#### 4.2: Political Processes

- Colonialism vs Imperialism
  - Both of these processes have impacted the states of shapes in the past and present
  - Areas that are being colonized or imperialized to not have total sovereignty or autonomy (Self governing country or region)
  - Colonialism - control of a previously uninhabited/sparsely inhabited area with the intent to settle there permanently (ex - Jamestown)
  - Imperialism - control of an indigenous society (typically to exploit them for their resources, not to live there)
- Colonialism
  - A colony is a territory that is legally tied to a sovereign state, rather than being independent
  - In the 1400s, European states began to control most of the world through colonialism (the efforts of one country to establish political, economic, and cultural aspects in a territory)
  - The Industrial Revolution gave more power to European states, which fueled colonization and conquest
  - Colonies are typically established in sparsely inhabited/uninhabited areas
  - 3 main reasons for colonies; "GOD, GOLD, AND GLORY"
    - God - to promote Christianity
    - Gold - for resources and new markets
    - Glory - more land = more power
  - "The sun never sets on the British empire"
    - The UK had the largest colonial empire, with colonies on every continent
      - This is a reason for widespread diffusion of the English language
- Imperialism
  - extending a country's power and influence through diplomacy or military force
  - This was often for exploitation to make profit, such as Belgium exploiting the Congo in Africa
- Ethnic Cleansing
  - Powerful ethnicity forcibly removing a less powerful ethnicity to achieve an Ethnically Homogeneous Region (Nation State)
  - Most modern ethnic cleansing has happened in SE Europe (balkans/ Yugoslavia) and Sub-Saharan Africa
  - Has led to genocide

#### 4.3: Political Power and Territoriality

- Territoriality - The connection of people, their culture, and their economic systems to the land.
  - This can be a source for political and ethnic conflict as people feel they have the right to live in certain areas, ie Tibetans in Tibet

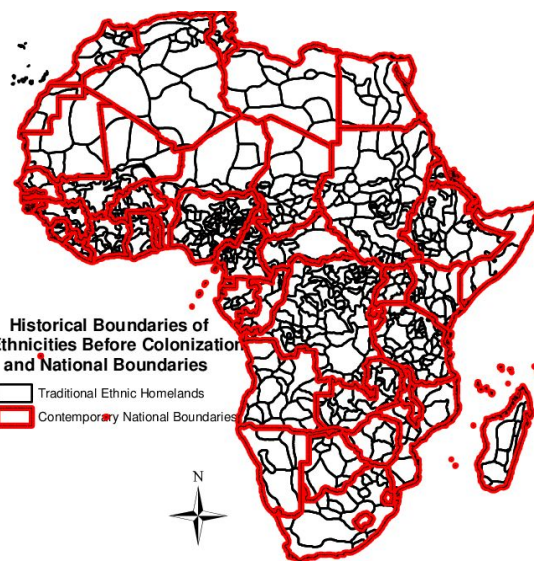
- Neocolonialism - A strong state "indirectly" controlling another through use of economic political, cultural and/or other pressures.
  - States who have more political power do this to those with less
  - America pays people in other countries very low wages for their work, they only have those wages to live off of, so many people in that country depend on America for life.

#### 4.4: Defining Political Boundaries

- Political boundaries are important to countries, they tie into territoriality, determine resources, and can be causes for conflict
- Types of boundaries;
  - Geometric boundary - Straight lines as boundaries, often set by an agreement of (normally) 2 countries
    - Ex: Indonesia and Papua New Guinea (also a superimposed boundary)



- Relic boundary - Historical boundary that is not there anymore but still have an impact
  - Ex: The Berlin Wall
- Superimposed boundary: Boundary that does not take ethnicity or history into account, normally lead to conflict
  - Many boundaries in Africa have been superimposed by European colonial powers, this has led to widespread ethnic conflict



- Subsequent boundary: boundaries developed with the cultural landscape
- Antecedent Boundary: Boundary established before human landscape, often physical boundaries

- Consequent Boundary: Boundaries drawn to accommodate ethnicity or culture
- Frontier: a zone where no state exercises complete political control.
  - Not often very populated
  - Not many in modern times
- Physical boundaries: significant features of the natural landscape
  - Most commonly deserts, mountains, or water
  - Ex: the Himalayan Mountains
- Cultural boundary: follow the distribution of cultural characteristics
  - Geometric and ethnic
- The shapes of states affect the potential for internal and external communication and conflict with neighbors.
- Shapes of states;
  - Compact state: the distance from center to boundary does not vary much at all, similar to a circle. Communication within the state is easier



- Elongated state: long and narrow, can lead to poor communication within a state





- Prorupted state: an otherwise fairly compact state with a large projecting extension. Projection is usually for access to resources, to separate two states, or to separate ethnic groups



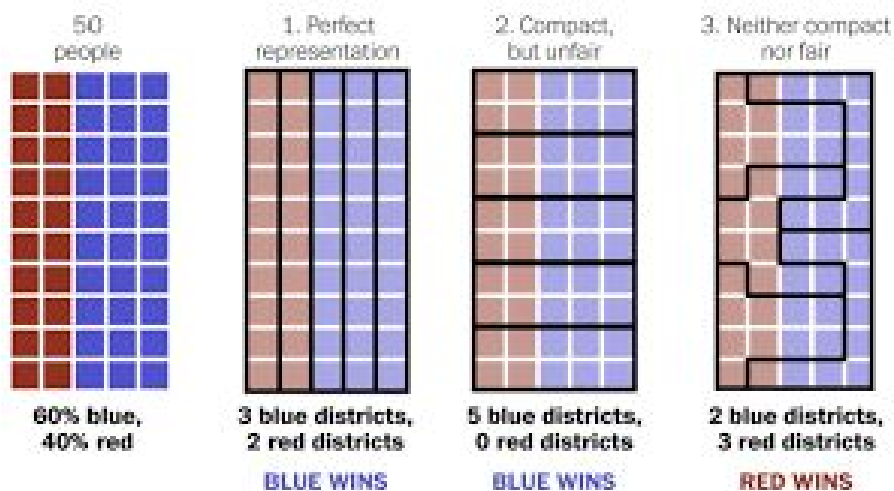
- Perforated state: a state that completely surrounds another one. The inside state will rely completely on the surrounding state for importing and exporting
  - South Africa surrounding Lesotho is the major example of this
- Fragmented state: several separate pieces of territory. Can be separated by a physical feature (water), or another state (intervening state)
- Landlocked state: no direct access to the ocean, no coast. This can lead to a lack of resources in a state, as much of modern trade is through ports.
  - 55 African states are landlocked due to superimposed colonial boundaries. This puts them at a disadvantage in the age of global trade.

#### 4.5: The Function of Political Boundaries

- Political boundaries are established to divide groups, to gain political advantage, and/or to define territory
- The types of boundaries (in 4.4) can help explain this

#### 4.6: Internal Boundaries

- Political boundaries inside states can be gerrymandered for political gain
  - In the US, boundaries are used to create legislative districts
  - **Gerrymandering:** the process of redrawing boundary lines to benefit the party in power
    - This is currently illegal but districts can be grandfathered in
  - Three types of gerrymandering
    - **Wasted vote:** spreads opposition across many districts, keeping them in the minority
    - **Excess vote:** concentrates opposition supporters into a few districts
    - **Stacked vote:** links areas of like minded voters through oddly shaped boundaries



#### 4.7: Forms of Governance

- States can be unitary or federal, or somewhere in between
  - **Unitary state:** a central government (main government holds all legitimate power)
    - It works best in a nation state with few cultural differences, strong sense of unity, and effective communication
    - Also works with Multinational states who try to impose only 1 nationality
    - Ex, France
  - **Federal state:** allocates strong power to units of local gov within a country
    - Works well for large states whose capital is too far away to be effective for many places.
    - Ex: United States
    - local governments have lots of authority to adopt their own laws
    - local boundaries often correspond with regions of different ethnicities.
  - Size is not the only factor for unitary vs federal
    - China is very big, but they have a Unitary state in order to promote communist government.

- Belgium is very tiny, but they are a Federal state because of their diversity.

#### 4.8: Defining Devolutionary Factors

- Shatterbelt - A region caught between stronger colliding (external) forces and that breaks apart because of the aggressive rivals causing the state to be politically unstable
  - Ex the balkans, areas in sub-saharan africa,
  - These areas are spaces for political conflict as states compete for power
- Devolution
  - The breakup of a state or the process in which regions within a state grow in power at the expense of a government
  - This doesn't always lead to new countries being formed. It could just be giving more political power to local governments.
  - Ex - fall of the USSR, breakup of Yugoslavia
  - Balkanization is a type of devolution
    - Balkanization - process by which a state breaks down through conflicts among its *ethnicities*, so not all devolution is balkanization, but balkanization is always devolution

#### 4.9: Challenges to Sovereignty

- States cooperate with each other for economic, political, and military reasons
- Supranationalism: when a group of states transfer or delegate certain powers to a united authority over the governments of the member states
  - Ex - political and military - United Nations, NATO
  - Ex - economic - European Union
- Devolution can be a challenge to sovereignty as groups within the country try to get more power
  - Autonomous regions - Areas of some countries that feel they ought to have a special status partly because of their cultural distinctiveness and are given more autonomy by their government.
    - Ex: Quebec, Canada
      - Because they have so many cultural differences from the rest of Canada that they are considered a different nationality and are given more local power to govern.

#### 4.10 Consequences of Centrifugal and Centripetal Forces

- A centripetal force is an attitude that tends to unify people and enhance support for a state
  - A war can unify a state and its people against a common enemy
- A centrifugal force is a force that divides people and countries
  - Ex; conflicting ethnicities
- Nationality, race, and ethnicity can be centripetal and centrifugal forces
  - Nationality

- Identity with a group of people that share legal attachment and personal allegiance to a particular state
- Ex; British
- Race
  - Identity with a group that share a biological ancestor (skin color)
  - Ex; black
- Ethnicity
  - A common cultural identity with a group of people with the same homeland or hearth
  - Ex; Hispanic
- Nationalism: loyalty and devotion to a particular nation

## Unit 5: Agriculture and Rural Land-Use Patterns and Processes (done by TheAbyssal Possibility and \_\_\_\_ )

### 5.1: Introduction to Agriculture

- Agriculture - deliberate modification of the earth's surface through cultivation of plants and rearing of animals to produce food
  - Rice and wheat are the main crops depending on the area
- Domestication - effort to manipulate species for an advantage
  - Ex: dogs, cows, sheep, pigs
- Changes during the agricultural revolution were all independent
  - Typically in river valleys, and changes in temperatures
  - Animals didn't migrate as much, so made people stay longer
    - Unsure if domestication or farming came first
- Extensive: less labor is put in, results in a large crop; crop example is wheat
  - Farming practices: shifting cultivation, nomadic herding, and ranching
- Intensive: lots of labor put in, doesn't make a large amount of crop for amount of labor; crop example is rice
  - Farming practices: market gardening, plantation agriculture, and mixed crop/livestock systems
- Agricultural practices are influenced by the physical environment and climatic conditions
  - Areas around Mediterranean vs tropics
  - Different crops thrive in different climates, like not finding coconuts in the Midwest
- Commodity: any product that is essentially undifferentiated
  - No difference in product regardless of which company you buy from
  - Oil, coffee, milk

### 5.2: Settlement Patterns and Survey Methods

- Effect of Agriculture on Cultural Landscape
  - Township and range - made after revolution and taking nation for ourselves
    - Aka rectangular survey system
    - Found in much of US west and Ohio R
    - Provides unit of land 36 mi sq
    - Divided into 36 six mile square called townships

- Metes and bounds survey approach → adopted along eastern seaboard
  - Natural features were used to demarcate irregular parcels of land
    - Relies on descriptions of land ownership
- Long-lot survey system - divided land into narrow parcels stretching back from rivers roads or canals
  - Common in French America (French Canada, Louisiana, Texas)
- Primogeniture - one child (oldest son) inherits all land is the norm in N Europe and N Europe colonies (Americas, S Africa, Australia, New Zealand)

### 5.3: Agricultural Origins and Diffusions

- 1st agricultural revolution was over many centuries, so more of a transition (aka Neolithic Revolution/Transition)
- Original hearths:
  - Fertile Crescent (Mesopotamia)/Bangladesh (Carl Sauer)
  - Nile River Valley (Egypt)
  - Yellow River Valley (China)
  - Indus River Valley (Pakistan/India)
  - Peru
  - South-Central Mexico
  - Niger River Valley (West Africa)
  - Ethiopia
- Major Hearths of Crop Agriculture
  - SW Asia (Fertile Crescent)
    - Barley, Wheat, lentils, Olives, Oats, Rye
    - Diffused to N Africa, S Europe, Central Asia from 10000 to 12000 years ago
  - E Asia
    - **Mango, taro**, coconut
    - Diffused to SE Asia
  - E ASia
    - Rice, soybean, walnut
    - Diffused to N/C Asia and Korean peninsula 9500 years ago
  - Sub Saharan Africa
    - **Yams, sorghum**, cowpeas, coffee, african rice
    - Diffused to W Africa and N Africa
  - Mesoamerica
    - Squash, peppers, **Maize (corn), potato**, sweet potato, cassava
    - Diffused to N and S America 5500 years ago

### 5.4: The Second Agricultural Revolution

- Seen emerging in late 16th to 19th centuries depending on the area
  - Began in England in order to feed growing population
    - Population was increasing but not enough food was being made b/c small island so limited farmland
  - Shifting from smaller independent farms to larger scale
    - Enclosure system - forces peasants off land; increases livestock
    - 4 field system and crop rotation are introduced

- New farming practices are introduced; main change being mechanization
  - Selective breeding
  - Increased use of the iron plough
  - Steam engine → tractors
- Effects of the Second Agricultural Revolution:
  - More food to meet growing population needs → results in even bigger population boom
  - Encourages urbanization because more people are moving to the cities as they are pushed off of farmland
    - Industrial revolution → colonization due to better technology
  - Huge market for crops
  - Improvements in transportation - steam ships, railroads, both help transport farming goods over bigger distances
  - Subsistence farming → commercial farming/monoculture

### 5.5: The Green Revolution

- Particularly dominant in third-world countries
  - Most first/second-world countries (e.g. Europe & North America) made agricultural technological innovations in late 1800's and early 1900's
  - Agricultural technological innovations took some time to spread to third-world countries
- Green Revolution occurred ~1950-1960
  - Cause: usage of tropical plant/animal hybrids, chemical fertilizers/pesticides
    - Example of animal hybrid: Brahman cattle → hybrid of European cattle and Zebu cattle (native to India)
      - Produced far more meat than tropical cows, while still maintaining high ability to survive in tropical conditions (marked by higher temperatures and humidity)
      - Brahman cattle still prevalent in many warmer areas of the world today
  - Note that mechanization was not a major factor in the Green Revolution, because it typically takes longer to diffuse to third-world countries
    - e.g. high cost of large-scale farm equipment, tractors, combines
    - exception to this exception: irrigation pumps, can be purchased at low cost in order to send water to farming regions
- Problems
  - Salinization
  - Topsoil loss → desertification?
  - Capital intensive - terminator seeds, fertilizers, pesticides etc
  - Super pests
  - Run off
  - Mechanization decreased need for workers
  - Sustainability???

### 5.6: Agricultural Production Regions

- Derwent Whittlesey identified 11 main agricultural regions plus an area where agriculture was non-existent
- Shifting Cultivation (aka Slash and Burn): practiced by 5% of the world
  - Farmer cuts down vegetation, burns plants for added nutrients to the soil
  - Intensively uses SWIDDEN (cleared land) for a few years (until nutrients are gone)



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- Then leaving land fallow (nothing planted) so soil can recover
  - Soil leeches and erodes
- Repeat process in new area
- Pastoral Nomadism (aka Pastoralism): practiced by .25% of the world
  - Depends Primarily on animals for survival NOT crops
    - Animals provide milk/blood (food), skin (shelter/clothing), and hair (clothing)
  - Animals are not slaughtered
    - Size of herd = social class
  - Types of animal based on physical/cultural traits
    - Camels more suited for Middle East
    - Central Asian steppes have horses, sheep, reindeer, goats, etc
  - Cyclical migration patterns
    - Based on available resources
    - Very territorial
    - Some nomads practice transhumance
      - Seasonal migration between mountain pastures and lowland pastures
- Intensive Subsistence (Wet Rice Dominant)
  - Located mostly in Asia
  - Relies on heavy wet season in summer for rice to grow
    - Too much or little rain a problem
  - Rice is harvested by hand and threshed by hand
  - Process is very labor intensive, but doesn't produce a large amount
- Intensive Subsistence (Other Dominant)
  - Places where precipitation levels are too low and too harsh winters
    - Places such as interior India and NE China
  - Crops other than rice are grown
    - Ex: wheat, barley, other grains (corn, millet, oats) and legumes
  - Land is still worked intensively to produce enough food for large populations
  - Human and animal power rather than machines
  - Sometimes Use crop rotation to increase yield
    - Not super popular
- Plantation Farming
  - Practiced in LDCs; owned by multinational corporations
  - Plantation = large farm produces 1-2 cash crops
    - Ex. cotton, sugarcane, coffee, rubber
  - Consumers in MDCs
- Mixed farming
  - grow crops and raise livestock on the same land spread, with most of the crops fed to animals rather than people.
  - Found in North America, Europe from France to Russia
  - Ex: beef, milk, eggs
- Dairy Farming
  - Located around large urban areas
  - "Milkshed"
    - Originally limited to short distances

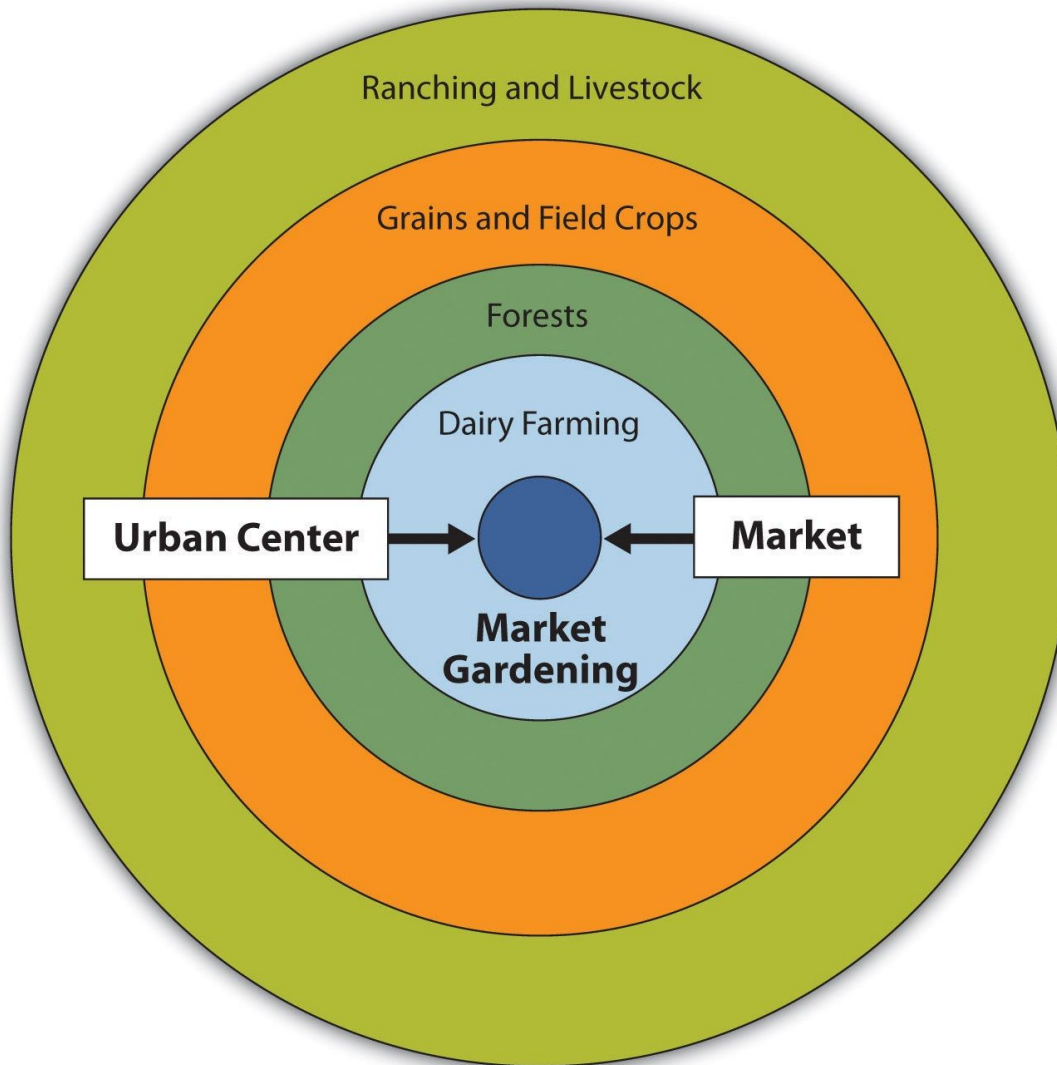
- New tech allows it to be up to 300 miles away
  - Farther away from urban area → more likely to sell butter, cheese, etc
  - # of dairy farmers decreasing
    - Too much work, too expensive to do
    - Output of milk is going up → increased yields per cow
- Grain Farming
  - Food grown primarily for humans, not livestock
    - Grown for sale to manufacturers not immediate consumption
  - Wheat most important crop - easy to grow
    - First in SW Asia, then spread throughout
    - Winter wheat and spring wheat are grown
  - Harvests increasingly mechanized
    - 1830s - McCormick reaper
    - Today - Combine
- Livestock Ranching
  - Commercial grazing of livestock over a large area
    - "Cowboys" used to move livestock closer to RR to be transported to market
    - Chisholm Trail most famous
  - Originally, cattle grazed on open lands; now graze in fixed area (too dry for crops)
    - Summer pasture and winter pasture (Nebraska - S, Texas - W)
  - CAFOs limit the area so that people aren't subject to the smells
    - Area around becomes more concentrated so that its not everywhere
    - Not near urban, lower operating costs
- Mediterranean Farming
  - Location: around Med, So Cal, SW South Africa, SW Australia
  - Crops grown for human consumption
  - Focus on horticulture = growing of fruits, veggies, flowers and tree crops
    - Grapes and olives most important around Med
    - So Cal focuses on citrus fruits, tree nuts, and deciduous fruits
  - Importance of value added (gross value)
    - Wine = better than oil or grapes
- Commercial Farming (aka truck farming)
  - Commercial farming and products are trucked from one place to another
  - Found mainly in SE USA, any area around large city
  - Products sold for human consumption
    - Consumer veggies and fruits (apples asparagus etc)
  - Labor costs low → use migrant workers and dependents on machinery
  - Speciality in NE = growing high end produce for the affluent
    - Mushrooms, peppers, organic produce

## 5.7: Spatial Organization of Agriculture

## 5.8: Von Thunen Model

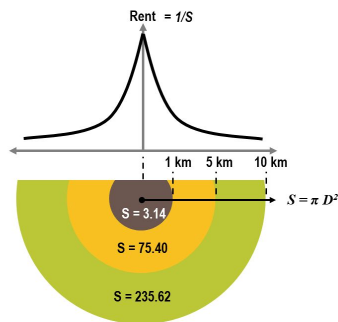
- Von Thunen model developed by Johann Heinrich von Thunen, in his book *The Isolated State* (1826)

- Describes pattern of agricultural land usage surrounding hypothetical European town/village/city
  - Context: Von Thunen is writing about agrarian geography Europe (although his work was published in the early industrial period)
- Theorized that there would be 5 “rings” that composed an agrarian city, each with a specialized function



- First ring (innermost): Town/village/city, as the central hub for everything
  - Von Thunen model considered type of central place model (this term would come to be characterized by Walter Christaller approximately 100 years later)
  - Organization of central marketplace and place of consumption for agricultural goods, which would be produced in the surrounding areas
- Second ring: Labor-intensive farming
  - Labor-intensive crops: includes fruits, garden vegetables, herbs, and anything that requires constant tending and/or weeding to be sold in the market
    - Generally have “ripe period” and/or perishable, meaning they had to be located relatively close to the market due to time constraints
  - Labor-intensive animals: includes dairy cows and egg-producing poultry

- Dairy cows require milking twice a day, perishable (see above)
  - Medicinal crops (e.g. herbs) grown along with vegetables in town market gardens for sale
- Third ring: Village forest ("wood")
  - Managed forest required to meet community's energy and lumber needs
  - Generally located close to town due to wood's weight and bulk
    - Minimizes transportation costs
  - Cutting and replanting of trees done in systematic and sustainable manner, allowing town woods to be used continuously as renewable resource
- Fourth ring: Labor-extensive farming
  - Labor-extensive crops require far less effort (e.g. wheat, barley, rye, corn, grain crops)
    - Members of grass family grow easily and tend to dominate their growing environments and outcompete any potential weeds
    - Consist of staple food crops
    - Require large plots of land → thus, this ring covers a very large area
- Fifth ring (outermost): Grazing
  - Least labor-intensive of all rings → single shepherd could tend to hundreds of cattle with aid of domesticated herding dogs
  - Highlands extremely suitable for this ring, as they are not fit for planting crops but are excellent for grazing animals
    - Similar to grain farming as grazing requires extensive land area & periodic movement due to overgrazing, which leads to destruction of native grasses and land erosion
- Land economics of Von Thunen's model
  - Von Thunen's model explains the cost-to-distance relationship in agricultural land use
    - Described as inverse relationship between value of labor and distance from center
    - This can be plotted as the land-rent curve, representing cost-to-distance relationship for each of the rings
      - Prices jump exponentially as you move toward the center ring



## 5.9: The Global System of Agriculture

## 5.10: Consequences of Agricultural Practices

- Genetically Modified Foods (Frankenfood)
  - Combining the DNA/Genetic material of different species
  - Ex: fish DNA combined with tobacco, potato, tomato
  - All sorts of pro/con debate
  - Europe has banned many
  - Selective breeding doesn't involve addition of foreign genetic material
    - Conscious selection for desirable traits

- Patents and R&D make this expensive

#### 5.11: Challenges of Contemporary Agriculture

- Food deserts (1 mile or more to a market)
  - Mostly processed foods
  - Few fruits and veggies (poor quality)
    - High prices
  - Mostly in poor areas - vicious cycle
  - Doubly bad: obesity prevalence correlated with income

#### 5.12: Women in Agriculture

- Women make up 40% of the world's agricultural labor force
  - In subsistence regions, make up to 70% of agricultural labors
    - Men more likely to migrate looking for work, usually to urban areas
    - Women tend to remain rural, resulting in farm work
  - Work the field, then bring products to local markets to sell (truck farming)
  - Women less involved in mechanized and modernized areas (in field work)
- Newer roles arose with large scale agribusiness; tend to have jobs in addition to or other than tending crops/animals such as:
  - Management
  - Sales
  - Distribution
- Challenges in the workforce, food production and prep, and consumption present challenges and opportunities
  - As role of women changes, results in less time being spent in the kitchen (both literal and metaphorical)
  - However, also leads to "easier" diets which tend to be less healthy
    - Fast food and junk food much cheaper than fresh stuff, and readily available, so is quickly sought out by consumers