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16 Things to Understand About Unit 1

1) Reference Maps show Clustering, Dispersion and Elevation
(Political Maps, Physical Maps, Plat Maps, Road Maps, Landscape Maps)

2) Thematic Maps (Choropleth Map, Dot Distribution Map, Graduated Symbol Map, Cartogram Map, Isoline Map)

3) Map projections distort shape, area (size), distance or direction

4) Robinson Projection, Mercator Projection, Azimuthal/Polar/Planar Projection, Gall Peters Projection

5) GPS and GIS, remote sensing

6) Scale: Small scale vs. large scale, as well as global, national, regional, and local scale

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Maps

~ Cartography is the science of map-making and modern cartographers use Geographic
Information Systems (GIS) and satellite imagery in general

~All Maps have four properties:
1) Distance – showing how far apart things are
2) Direction – North, South, East, West
3) Shape – shows the form of land and water masses
4) Scale – How much of the area are we showing and at what size

~Types of Maps
The two main types of maps are Reference Maps and Thematic Maps

~ Reference Maps show information for a particular place, and are designed for people
to refer to them, hence the name (They include physical
maps, political maps, road maps, plat maps and landscape
maps)

~ Thematic Maps focus around one topic or theme rather than
for general reference (They include choropleth maps, dot
distribution maps, graduated or graduated symbol maps,
cartogram maps and isoline maps)

~Many reference maps make it easy to determine if houses and
structures are clustered (grouped tightly together) or dispersed (spread
out equal distance). Of course, it often can be somewhat random and in
between as well. The thematic maps called dot distribution maps are
especially adept at showing this.

A) In the example to the right, box A„ at the top, shows what
clustering looks like in general. These clusters could denote houses, or
any number of other features
B) Box B, meanwhile, shows dispersion; not only are the marked
features separated from one another, the are separated by a fairly equal
amount.
C) Box C is often labeled as random because they features are not
equally dispersed, nor are they clustered together.

A) Clustering

B) Dispersion

C) Random (Mixture of both)
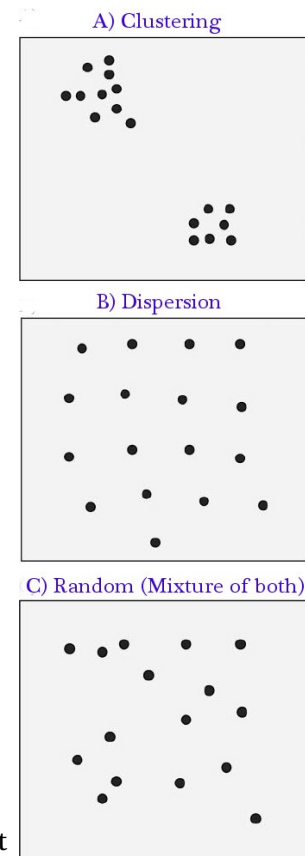
Reference Maps

Type of Reference Map	Definition
Physical Maps	Show and label natural features such as mountains, deserts or rivers
Political Maps	Show and label human-created boundaries and designations like countries, capitals, cities, and states
Road Maps	Show and label interstates, highways, and streets
Plat Maps	Show and label property lines and details of land ownership
Topographic Maps / Landscape Maps	Show the elevation of the land through contours (Landscape maps specifically are large scale and show fine

United States Physical Map

North Florida Road Map
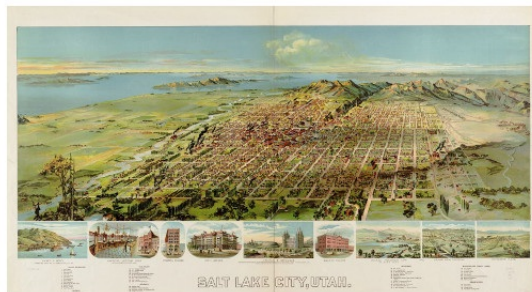
Salt Lake City Landscape Map 1891

Miami Plat Map 1918
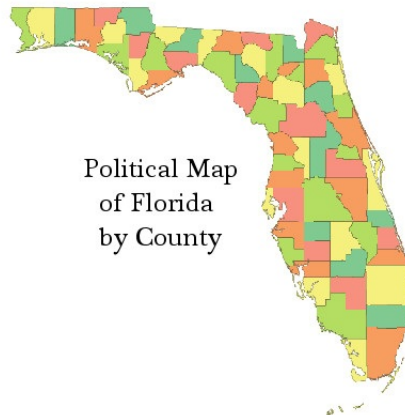
Political Map of Florida by County

Thematic Maps
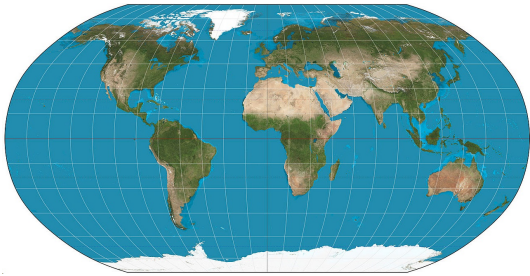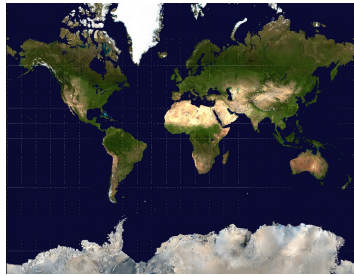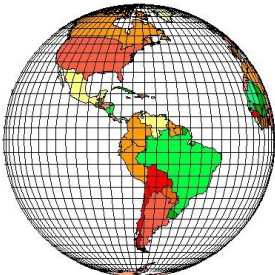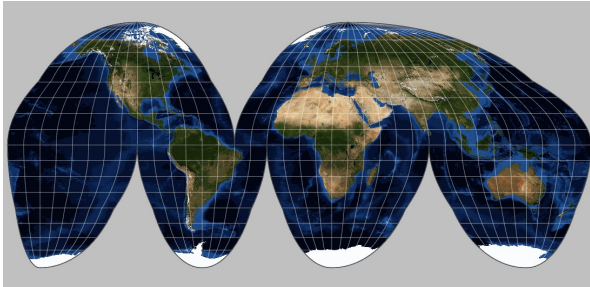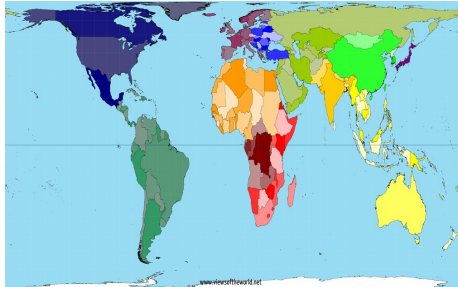
Type of Thematic Map	Definition
Cartogram	Shows the strength of an idea by distorting the size of the place
Graduated / Graduated Symbol Map	The size of the circle or symbol represents how strong the theme is in an area
Dot Distribution Map	Uses a dot to represent one unit of something. Areas with clusters of dots have a strong presence of the theme
Choropleth Map	Areas shaded to show how strongly they represent a certain theme
Isoline Map	Lines connect points of equal value. (Usually Weather Patterns)

Map of U.S. Electoral Votes 2015

Cartogram Map of U.S. Electoral Votes 2015

Graduated Map of California Motor Vehicle Deaths

Graduated Symbol Map of California Motor Vehicle Deaths

Dot Distribution Map of U.S. Public Libraries

Choropleth Map of World Obesity Percentage

Isoline Map of Australian Climate
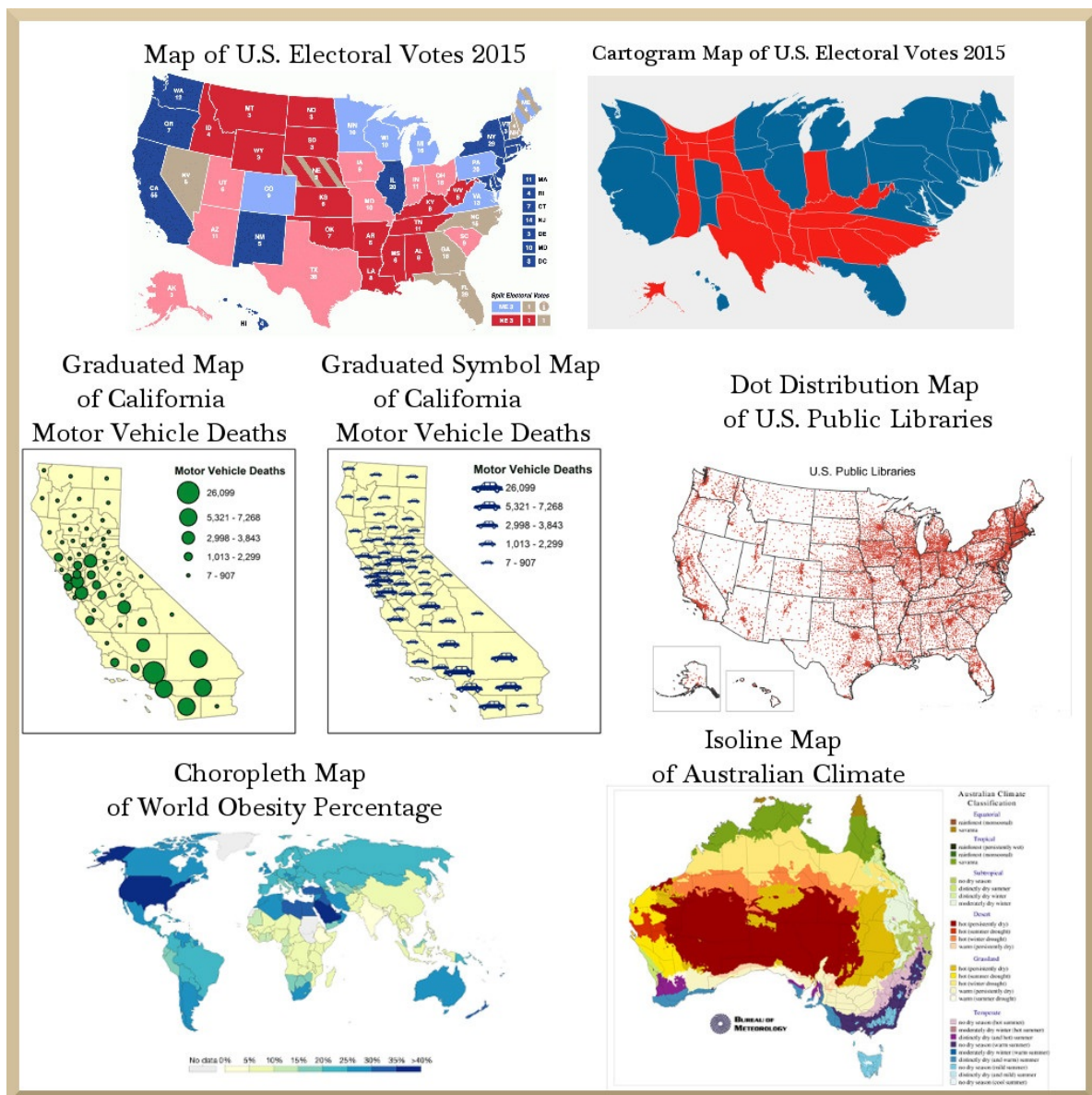
Map Projections

~ Map Projections are distortions necessary to take something spherical like a globe and represent it as flat like a map. Area/Size, Shape, Direction and/or Distance must be distorted

Projection Type	What is distorted	Advantages	Disadvantages
Robinson (Oval Map)	Poles are shrunken	Small distortions of all	Can't sail by it
Mercator (Cylindric)	Areas near poles stretched	Shows true direction, used by ships	Areas near poles are bigger than reality
Azimuthal (Planar)	Gets bigger away from poles	Used by airline pilots	You can only see one hemisphere at a time
Winkel tripel	Mostly shape	Little other distortion	Very few, sailing
Goode's Homolosine	Interrupts oceans	Stresses land masses	Water paths distorted
Gall-Peters	Elongates countries	Accurate proportions for S Hemisphere	Really long countries esp. near equator

Robinson	Mercator
Azimuthal (Planar)	Winkel tripel
Goode's Homolosine	Gall-Peters

Remote Sensing, GPS, GIS and Scale

Application Of Remote Sensing

- Space Exploration(Moon , Mars ,Sun ,...)
- Environmental monitoring
- Scientific assessment of meteorological images
- Measure the solar incident radiation on ground
- Land Cover
- Data pertaining to the coastal zone
- Delineation of coastal landforms and tidal
- Impact of deforestation on global climate
- Agriculture
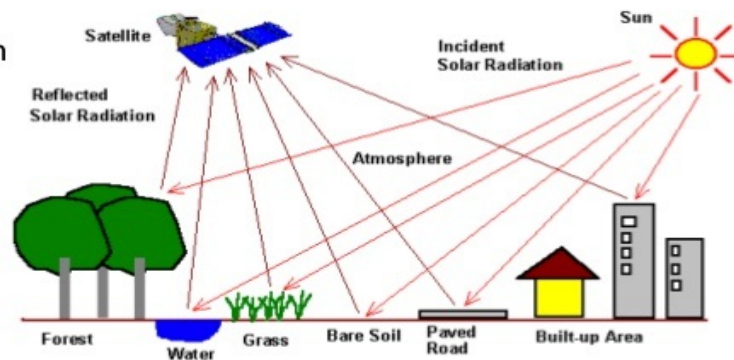
~ Remote sensing is an art and science of obtaining information about an object or feature without physically coming in contact with that object or feature

~What most people think of as GPS is really a combination between GPS and GIS. GPS determines your position by longitude and latitude, but GIS adds in the roads, stores, addresses and physical features that make that information useful.

GPS versus GIS

Global Positioning System (GPS): A satellite system that projects information to GPS receivers on the ground, enabling users to determine latitude and longitude coordinates.
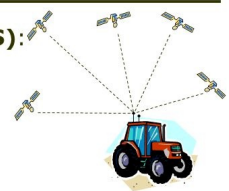
Global Information System (GIS): Software program that enable users to store and manipulate large amounts of data from GPS and other sources.

~Scale is the ratio between the size of an area on a map and the actual size of the same area. The terms small-scale and large-scale are confusing. They have to do with how close the objects are to actual size. The smaller the object is in relation to its actual size, the smaller the scale.

Scale	Description	Example
Small-Scale	Depicts large areas with little detail	Map of United States
Large-Scale	Depicts small areas with great detail	Map of Lake City

*Many geographical concepts mean different things when you look at them at different scales. The four main scales to look at problems are global (affecting the whole world), national (pertaining to one nation), local (just pertaining to a town or village), and regional (a world region is in between global and national, while national region is between national and local).

Types of Culture Regions

~ Culture Region: An area of the Earth characterized by a sharing of cultural traits

<div align="center">Types of Culture Regions</div>

Formal (Uniform)	A region that has at least one similar physical or cultural trait that unifies it, often language or religion. They have no set borders, as these cultures often overlap in border zones.
Functional (Nodal)	An area with certain political, economic or social activity that unifies it. It contains at least one node that is the center of activity and connects it to the market area (hinterland) around it. It typically connects the region by trade, communication or transportation.
Perceptual (Vernacular)	An area defined by a person's beliefs or feelings, created by an individual's own associations and attachment to the area. May be defined by prejudices or personal thoughts, and the borders vary from person to person, based on their own perceptions.
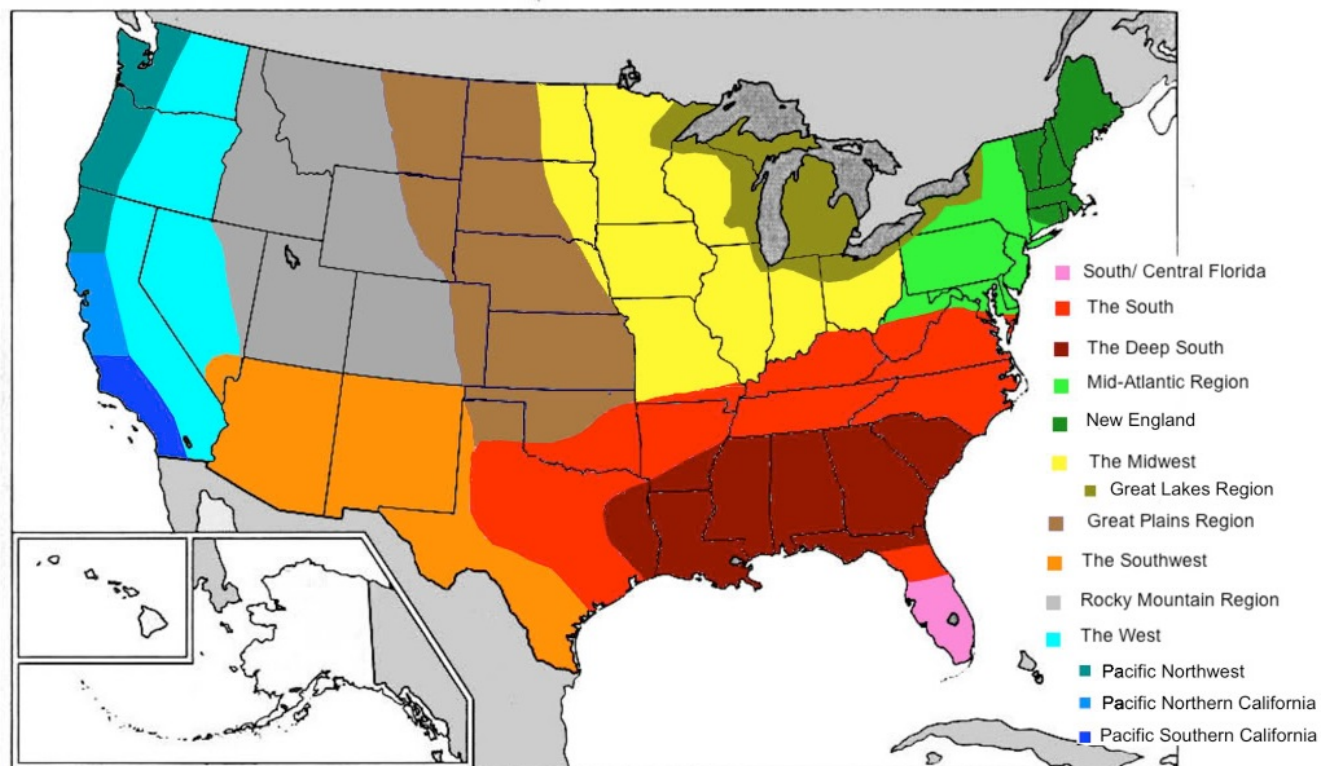
*This map is a good example of perceptual regions of the United States, as not everyone will agree that the sections cut off where they do. Most people who live in individual states would have a much more specific and in depth division of their own state.

~ Subregions: Subsets of larger regions with distinguishing characteristics. For example, Latin America contains Mexico, Central America and South America. Brazil is a subregion of Latin America that is primarily Roman Catholic, but in Brazil they speak Portuguese and not Spanish.

Major World Regions
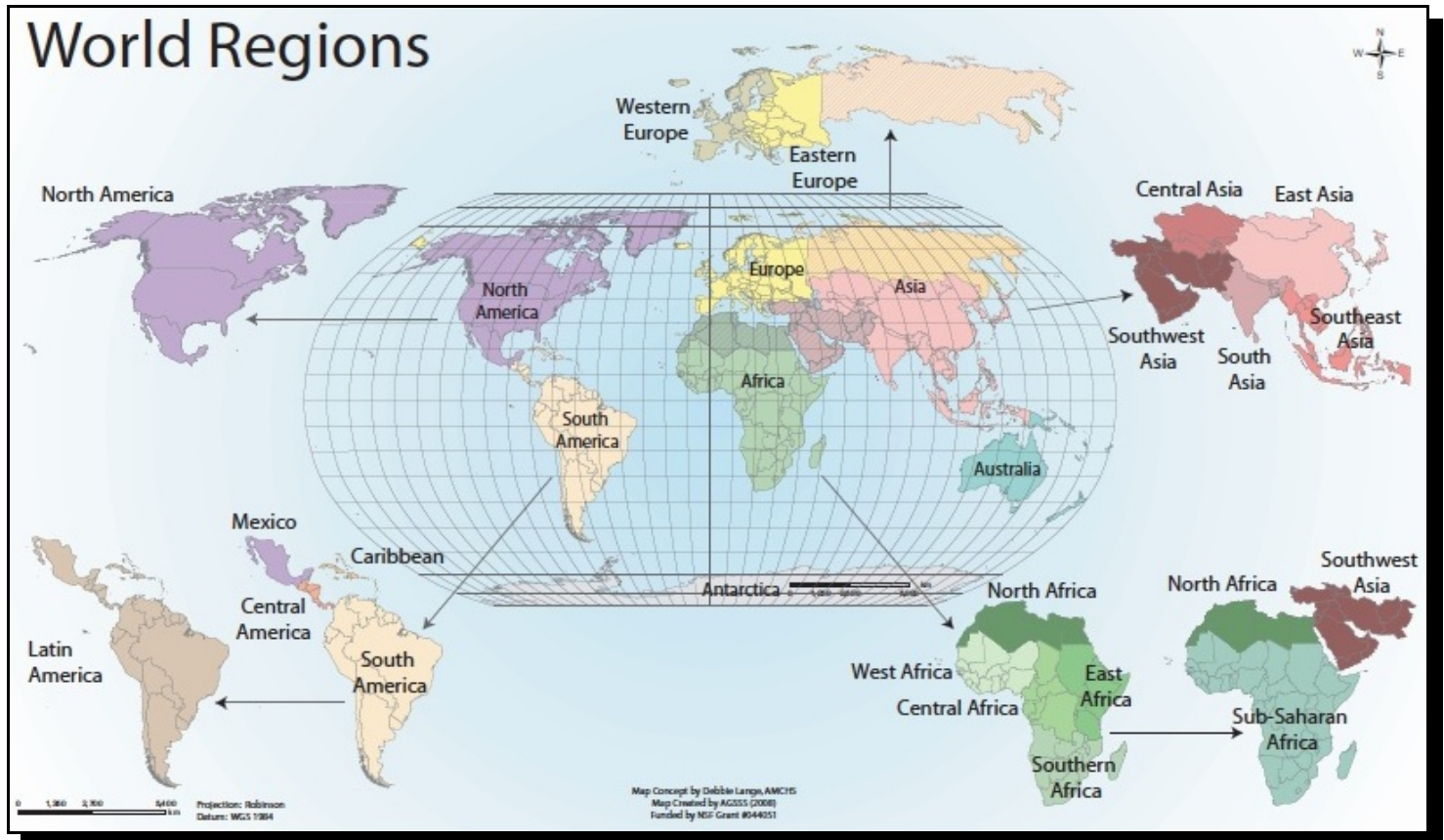
*Note that regions can contain all of a continent, part of a continent, or part's of two continents like Latin America. Also, Southwest Asia and Egypt make up the Middle East.

Key Countries in Each Region

Anglo America (English Speaking America): United States and Canada
Latin America: Mexico, Argentina, Brazil
Western Europe: Germany, France, Italy, Spain, United Kingdom
Eastern Europe: Russia, Ukraine, Poland, Estonia
Southwest Asia: Iran, Iraq, Saudi Arabia, Israel
North Africa: Egypt
Sub-Saharan Africa: Nigeria (West), Ethiopia (East), South Africa (Southern)
Central Asia: Kazakhstan
South Asia: India, Pakistan
East Asia: China, North Korea, South Korea, Japan
Southeast Asia: Thailand, Indonesia, Vietnam, Singapore
Oceania: Australia, New Zealand

U.S. Regions

The Noncontiguous states have their own unique feel. Because of their great distance from the other states, Alaska and Hawai'i do not share the same trends with those states or each other.

The Pacific Coast states have quite a variance, ranging from forests to mountains to fertile valleys to deserts. Located on the Ring of Fire, with frequent earthquakes and volcanoes, they focus on the environment.

The Rocky Mountain states are fairly sparsely populated because of the mountains. High mountains produce precious metals, and the area is known for being fairly well of and for their ski slopes in Colorado.

The Heartland, sometimes known as the Breadbasket of America is home to the majority of U.S. crop production, especially wheat and corn in Iowa and Nebraska, but also some cattle and milk production.

The Southwest has vast expanses of deserts, canyons, mesas and open spaces. While the Grand Canyon is the most stunning feature of the region, it is known for ranching as well as immigration issues with Mexico.

The six states of New England are some of the earliest settlements of the U.S., with half of the country's Ivy League schools. It is also known for its fishing industry and its many islands, bays, and coves.

The Mid-Atlantic region and its major cities like Philadelphia, New York, Pittsburgh, and Baltimore, had a profound influence on the rest of the country, with their dialect becoming the default for national news.

The Midwest, sporting a misnomer from when there was less of the U.S., is actually closer to the East Coast. Known for bordering the Great Lakes, and now as the center of the Rust Belt, it is the manufacturing region of the U.S.

The Appalachian Highlands are in the hills and mountains of the Eastern U.S., which are lower than the Rockies, and known more for coal production than precious metals. It is a high poverty region.

The Southeast was an agricultural region, primarily for products not in as high demand as they once were like cotton and tobacco, and therefore is a fairly poor region of the U.S., with the exception of Florida and its tourism.

Location & Place
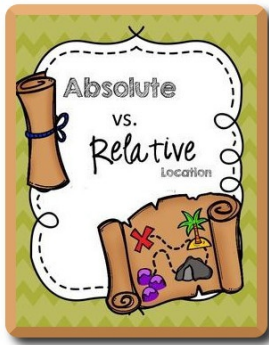
~ Absolute location is exactly where something is located. On a global scale, this can be told with longitude and latitude, on a more local scale, it can be told with a street address. Columbia High School is at 469 SE Fighting Tiger Drive, Lake City, FL 32025. That is an absolute location.

~ Relative location is identifying something but saying what else it is close to. Columbia High School is across the street from the Busy Bee with the Subway inside is a relative location.

While we're mentioning them anyway, here's some reminders about longitude and latitude. The simplest way to remember which is which is the expression LATITUDE IS FLATITUDE. The lines of latitude include the equator (0° latitude).

Longitude runs the other way and includes the prime meridian (0° longitude), which runs through Greenwich, England (0° longitude), and the International Date Line (180° East or West longitude), halfway around the world from it.

Sense of Place

Put simply, it is the feeling of belonging to a place because its unique traits, especially when it is part of your own history. When a location takes on a unique identity in people's minds.

A fixture of Live Oak, there is just one Brown Lantern, adding to Live Oak's Sense of Place

~ For example, someone who grew up in Lake City, Fl. would have a different sense of place about it than someone who had just driven through or had never been there.

~ Sense of place is always changing when major events happen within a place. The Twin Towers collapse on 9/11 are quick associations with New York now. Obviously, prior to 2001, New York did not have that as part of its sense of place for anyone.

~ Placelessness: The complete removal of sense of place. Some people fear every place will become so similar to every other place through globalization that unique "places" will disappear. Once every place has a Walmart and a Subway, are they really so unique?

~ For example: The different cities in France have different origins and histories, but many Americans see them as mostly the same. Paris, on the other hand, has the Eiffel Tower and even as far away as America stands out as unique.

Hearth, Distance Decay, Time-Space Compression

~ Hearth: Quite simply put, it is the places where something originates. The point of origin. That can be anything from an idea, an invention, a food, a religion, a language, or even a people group. This is where something began.

~ Distance Decay: The principle that states that as things get further away from the hearth, the less relevant to individuals, the culture spread from the hearth becomes.

~ Flows: The movement back and forth of ideas, culture, or people. The term is used most often in reference to migration patterns.

Another way to explain the concept of Distance Decay, which is sometimes referred to as the friction of distance is by saying that the further two things are from one another, the less interaction they will have with each other, and therefore the less affect they will have on each other. Greater distance makes it difficult to trade, communicate, and maintain cultural connections and flows. However, this is changing because of another concept – Time-Space Compression.

Time-Space Compression

The key thing the chart on the right shows us, is that over the course of history it has become much easier to get places more quickly.

The invention of the train, the airplane and the jet airplane have made it where we can travel from one side of the world to the other in as little time as it took people to travel across just Europe or the United States 200-500 years ago.

Therefore, much like we can travel much farther, culture can travel much farther. There is still distance decay, but the distances have increased.

With chat programs like Skype, Discord and FaceTime and worldwide access to the Internet, it may become possible to stay attached to your culture longer despite great distance.

1500–1840

Best average speed of horse-drawn coaches and sailing ships was 10 m.p.h.

1850–1930

Steam locomotives averaged 65 m.p.h.
Steam ships averaged 36 m.p.h.

1950's

Propeller aircraft
300–400 m.p.h.

1960's

Jet passenger aircraft
500–700 m.p.h.
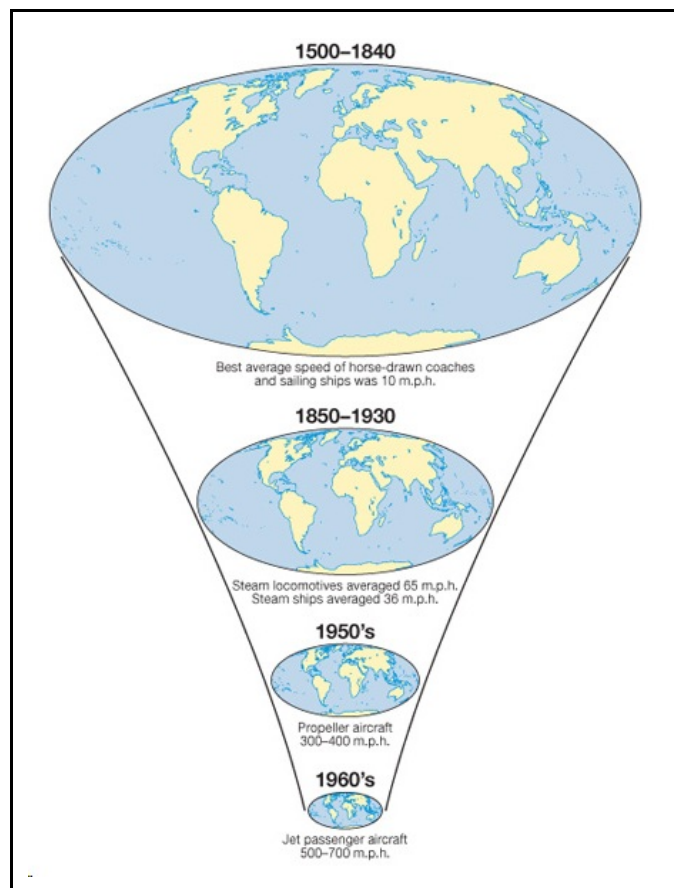
Landscape Analysis

       The landscape is literally the shape of the land. Geographers have to first observe what is happening in a location, then they have to interpret what they have observed to predict trends.

Ways to Obtain Data

~ Field observation: The most classic way to obtain information. It quite literally is what it sounds like. You go into the field and you observe. This includes taking notes, sketching maps, counting and measuring things. For years this was the only way that geographers could get spatial data.

       In addition to field observation, modern technology allows us to collect data without doing it by hand. We can analyze chemicals in the air, take photographs of the land instead of sketching, use aerial photographs or even remote sensing to get data.

       Things brings us to a second point, there are two methods for gathering data. Primary data is gathered yourself. If you conduct your own survey or make your own measurements. Meanwhile, secondary data is when you use information that somebody else already collected and made available like the U.S. Census.

Quantitative vs. Qualitative Data

Not only are there two methods for gathering data, there are two types of data gathered – quantitative and qualitative data.

~ Quantitative data is information that can be expressed by numbers or that can be placed into specific categories. It provides you with quantifiable information. This data easily be transformed into statistics. It is often used to test and prove previously-specified concepts or hypothesis.

~ Qualitative data is descriptive information, usually in the form of text. It tells you about features (quality) and mostly involves an intuitive process. It is commonly used to formulate theories and hypothesis.

QUANTITATIVE VS. QUALITATIVE

Right! Thanks Mina

Alright, so depending on what we need to find out, or the problem that we are solving, we collect our data in two ways:

QUANTITATIVE DATA consists of any variable that is measurable, numerically speaking. IF I can count it, it's quantitative data.

QUALITATIVE DATA consists of any type of variable that is not measurable with numbers.

1) The mountain's height

1) How the view from the mountaintop inspires people

2) How many street lights are out in a particular neighborhood

2) How scared people feel because of how dark it is at night with less street lights

3) What the temperatures are in Florida in the summer

3) How opressive it is to work outside in the heat

Resources

~ In order to be a resource a product must fulfill three criteria

       1) It must be useful to people
       2) It must be able to be accessed
       3) It must be socially acceptable to use
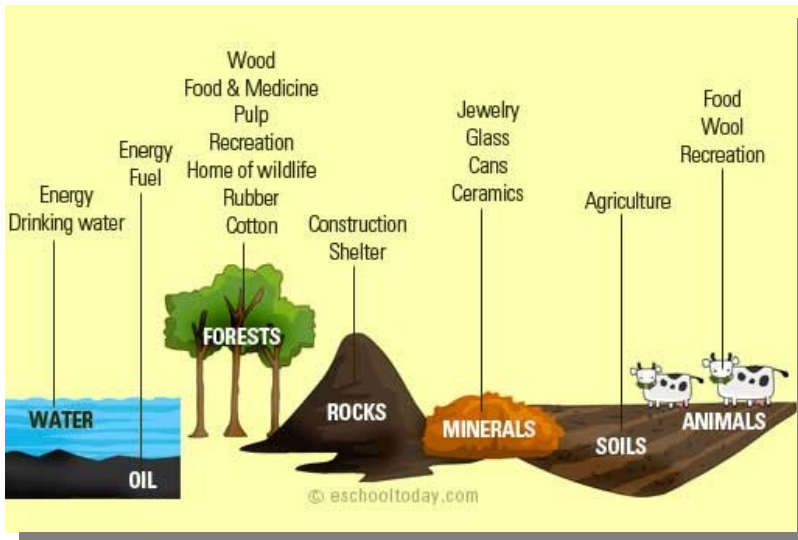
~ Natural resource: a specific type of resource that occurs naturally in the Earth. They are often the raw materials that humans use to create things. Since they occur naturally, humans cannot make them, and they can become scarce if overused, though some like forests and wildlife are easier to replenish than fossil fuels.

~ Fossil fuels: natural fuels such as coal, oil or gas, formed in the geological past from the remains of living organisms.

~ Sustainability is avoiding the depletion of natural resources in order to maintain an ecological balance. One of the United Nations 17 Sustainable Development goals deals directly with the protection of natural resources.

We will study the UN Sustainable Development Goals as a whole later, but there are a few points with this one to cover here.

       1) It is hard and expensive to make the jump from LDC to MDC and natural resource use usually is included

       2) The focus of this goal is to break the pairing between resource use and depletion and economic growth

Built Environments and Sequent Occupancy

Though the term environment is usually related to nature and things that occur naturally, there is also something called a built environment which consists of all the things that humans create that become part of the landscape like buildings, roads, signs or fences.

Of course, the are very few, if any, located in the world where one culture has dominated throughout time. This is where sequent occupancy comes in, which is the notion that successive societies each leave their cultural imprint on a place, contributing to its cultural landscape.

Environmental Determinism, Possibilism, Humans as Modifiers

These are theories as to how much geography shapes culture.

     Environmental Determinism: The theory that the climate and the physical landscape of an area greatly affect the behavior and culture of the people living there. Factors of physical geography that affect the culture include: climate, land forms, access to water (including whether a country is landlocked), and arability of land,

     Examples:
~ Tropical climates cause relaxed attitudes
~ Variety of weather in middle latitudes cause more driven work ethics
~ Cold climates make the people who live there brutish and harsh

     Easy to see how this philosophy can be pushed by Europeans and Americans, who live in those middle latitudes, to ascribe to themselves a greater work ethic. Carl Sauer and others started to point out that the theory was faulty in the 1920s.

     Possibilism (sometimes called Cultural Determinism): A modification of environmental determinism theory that states that physical geography can limit the possibilities of a culture but it doesn't control them. The culture is also shaped by social conditions. Basically this theory states that the environment creates obstacles that people must overcome, but allows that people can overcome those obstacles. As technology advances this becomes more and more apparent.

     Possibilism is believed by far more people than environmental determinism. Things like the Valens aqueduct that provided fresh water from 400 miles away to Constantinople (now Istanbul), work against the notion of people being locked in by their surroundings.

     A third theory that gets less discussion is called Humans as Modifiers, which basically asserts that humans have come so far that they can bend the environment to their will.

Houses that defy their natural locations
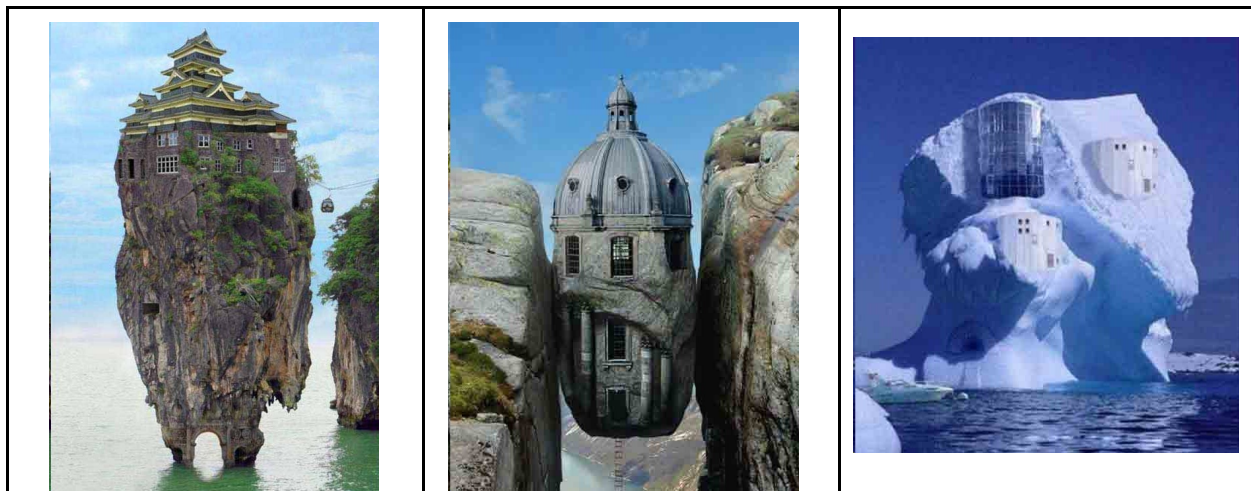
16 Thing to Understand About Unit 2 Gold

1) Demographic Transition Model

2) Birth rate, death rate, RNI, doubling time

3) Total Fertility Rate, Infant Mortality Rate

4) Epidemiological Transition Model

5) Physical factors of population distribution (climates, landforms, bodies of water)

6) Human factors of population distribution (culture, history, economics, politics)

7) How the physical and human factors vary with scale

8) Arithmetic density, arable land, Physiological density, agricultural density

9) Population pyramids

10) Carrying capacity

11) Malthus theory of population

12) Cornucopian Theory vs. Neo Malthusian Theory

13) Dependency Ratio

14) Reasons for aging population (sanitation, nutrition, health care)

15) How changing roles for females affect demographic change

16) Pronatalist vs. Antinatalist policies

The Demographic Transition Model

~ The Demographic Transition Model (DTM) describes change over time as a country develops into an industrialized economic system.

Stage	1 Early Expanding	2 Expanding	3 Late Expanding/ Stable	4 Stable	5 ? Contracting
Examples	A few remote groups	Egypt, Kenya, India	Brazil	USA, Japan France, UK	Germany
Birth rate	High	High	Falling	Low	Very low
Death rate	High	Falls rapidly	Falls more slowly	Low	Low
Natural increase	Stable or slow increase	Very rapid increase	Increase slows down	Stable or slow increase	Slow decrease
Reasons for changes in birth rate	Many children needed for farming. Many children die at an early age. Religious/social encouragement. No family planning.		Improved medical care and diet. Fewer children needed.	Family planning. Good health. Improving status of women. Later marriages.	
Reasons for changes in death rate	Disease, famine. Poor medical knowledge so many children die.	Improvements in medical care, water supply and sanitation. Fewer children die.		Good health care. Reliable food supply.	

~ Crude Birth Rate (CBR) is the amount of births per year per 1000 people in population.

~ Crude Death Rate (CDR) is the amount of deaths per year per 1000 people in population.

~ Rate of Natural Increase (RNI) is the difference between number of births and deaths.

Understanding the Demographic Transition Model

The Demographic Transition Model runs from Stage 1 to Stage 5. It shows how when the birth rate is much higher than the death rate, the population grows quickly, and how when the birth rate drops below the death rate, countries population begin to shrink. Periphery (LDC) countries tend to be on the lower end of the DTM, while semi-periphery tend to be in the middle and core (MDC) countries tend to be on the high end.

Above is an updated example of the DTM. When the chart above first came out, people were still speculating over whether Stage 5, where a population shrinks, actually existed. It is overwhelming apparent in 2019 that Japan is in stage 5 (See arrow). So while the rest of the chart remains the same, which countries are where will be constantly changing.

Total Fertility, Infant Mortality and
The Epidemiological Transition Model

~ Total Fertility Rate is the average number of children born per woman in a society. In general it needs to be above 2.1 for a society to maintain its current population without migration. The number is higher than 2.0 because it is expected that some female children will die before reaching child bearing ages.

Total Fertility Rates in 2018

7–8	
6–7	
5–6	
4–5	
3–4	
2–3	
1–2	
0–1	
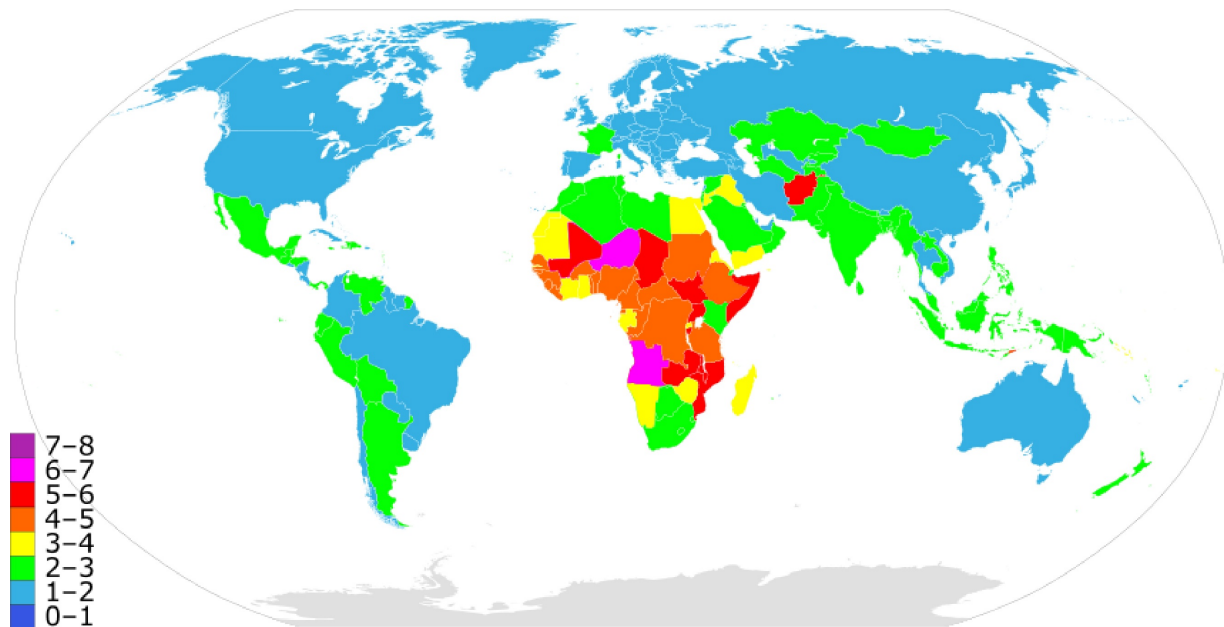
The Epidemiological Transition Model

~ Infant Mortality Rate – The number of children who die before reaching age one out of every 1000 live births. It is higher in LDCs who have less quality medical care than MDCs. In fact, the types of diseases contracted in MDCs and LDCs vary greatly because of medical care as well.

~The Epidemiological Transition model (right) demonstrates how less developed countries tend to be more likely to die from communicable diseases (flu, tuberculosis, rabies, measles, HIV/AIDS), while more developed countries tend to be more likely to die from lifestyle related chronic diseases (diabetes, obesity, heart disease, hypertension).

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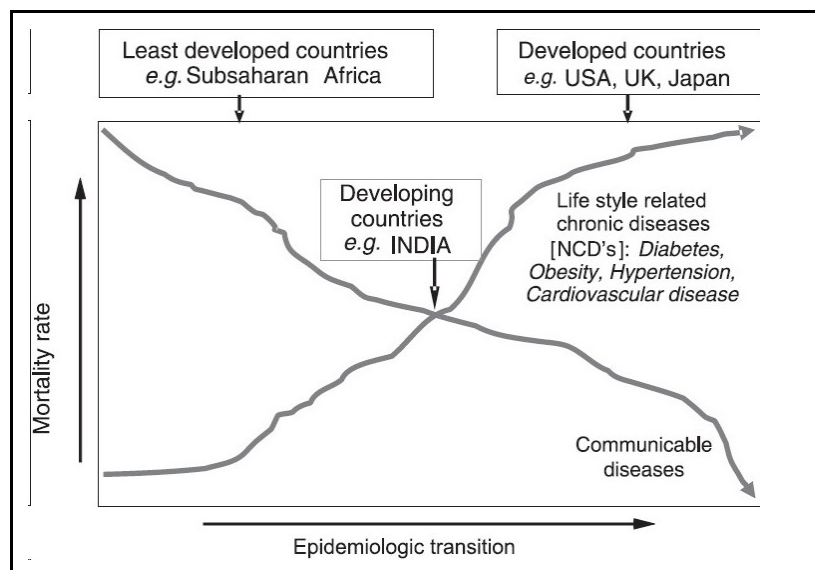
Physical factors of where people live

~ Climate is the average weather conditions of a region (typically measured over 30 years), and it includes the temperature, air pressure, humidity, precipitation, sunshine, cloudiness, and winds. People tend to want their ecumene (land that people have made their permanent home) to be in moderate, less extreme, climates. They don't want to be too near the poles (in high latitudes) or too near the equator (in low latitudes). Most people remain between 30° & 60° N latitude or 30° && 60° S latitude
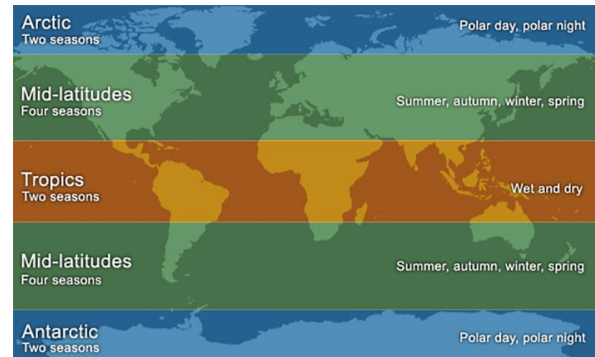
Which is not to say that people love living everywhere as long as it is a middle latitude. There are typically four extreme conditions that will limit population, if it is too wet, if it is too dry, if it is too cold and if it is too high elevation wise.

1) Wet: Extremely wet climates, like the Florida Everglades (top left) or the Amazon rainforest are too wet to farm well, as the excess water carries nutrients away.

2) Dry: Extremely dry climates like the Sahara desert (top right) have the opposite problem and don't have enough water for crops.

3) Cold: Crops freeze easily and extremely cold climates are inhospitable to humans as well.

4) High: Hilly and mountainous areas, while exceptional for views, often have rocky soil that makes farming difficult. These four extremes show us that most people will not live in areas they cannot farm successfully.
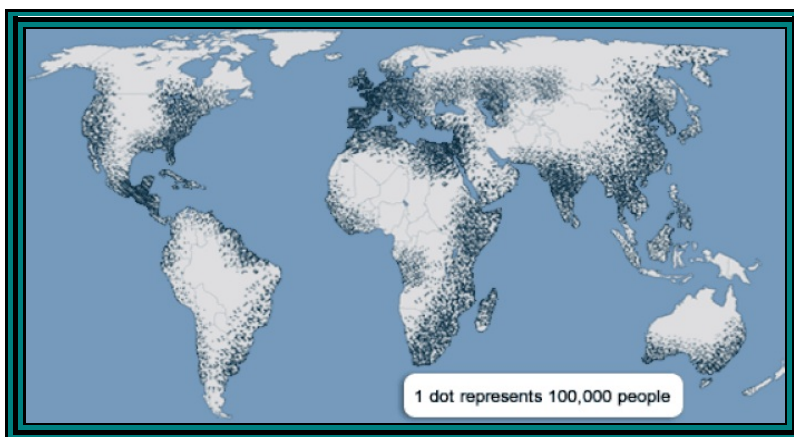
KEY STATISTIC: Nearly 70% of the world's population live within 250 miles of the coast.

In the map to the left each dot represents 100,000 people. In addition to this tendency of being near the coast, even inland, people settle close to rivers, lakes, and other sources of fresh water

Human factors of where people live

Physical Factors	High Density	Low Density
Relief (shape and height of land)	Low land which is flat e.g. Ganges Valley in India	High land that is mountainous e.g. Himalayas
Resources	Areas rich in resources (e.g. coal, oil, wood, fishing etc.) tend to densely populated e.g. Western Europe	Areas with few resources tend to be sparsely populated e.g. The Sahel
Climate	Areas with temperate climates tend to be densely populated as there is enough rain and heat to grow crops e.g. UK	Areas with extreme climates of hot and cold tend to be sparsely populated e.g. the Sahara Desert

Human Factors	High Density	Low Density
Political	Countries with stable governments tend to have a high population density e.g. Singapore	Unstable countries tend to have lower population densities as people migrate e.g. Afghanistan.
Social	Groups of people want to live close to each other for security e.g. USA	Other groups of people prefer to be isolated e.g. Scandinavians
Economic	Good job opportunities encourage high population densities, particularly in large cities in MDCs and LDCs around the world.	Limited job opportunities cause some areas to be sparsely populated e.g. Amazon Rainforest

While the physical factors determine what types of climates humans like, the human factors help dictate why that population isn't spread uniform across the globe. In fact, it is far from uniform.

Main areas of population concentration:

A. East Asia (China, Korea, Japan)
B. South Asia (India, Bangladesh, Pakistan)
C. Southeast Asia (Indonesia, Thailand)
D. Europe
E. Northeastern United States

**Worth noting that there is a huge gap between the concentration in Asia and the concentration elsewhere. The United States is the third largest country in the world by population, but China and India each have roughly four times as many people as the United States.

There are more people living inside this circle than outside of it.
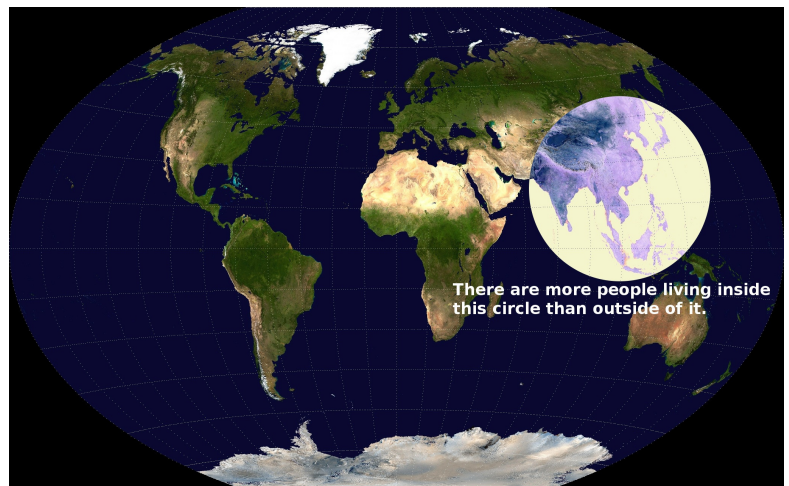
Scale matters

Physical: On a global scale, people don't like to live in high elevations like the Himalayas, but on a more local level, all there are not huge variances in climate, and the highest elevation spots in town may be more desirable and valuable because of their good views.

Human: Relative to rural areas, cities are often more polluted, yet because of the jobs offered there, people are willing to migrate to the city a pattern on the regional scale, but on the local scale, the would not want to live right next to the most polluted areas.

Population Density

KEY POINT: Arable land is land that can be used for agriculture.

Two main ways to measure population density:

      1) arithmetic density – the number of people per unit area of land
      2) physiological density – the number of people per unit of arable land

Basically, arithmetic density (which is what most people mean when they talk about population density) does not take into account whether the land is inhabitable or not. Therefore, it may indicate that places are far less crowded than they are.

For example: Egypt has a much higher physiological (2,256 people per square kilometer) than its arithmetic density (84). This is because much of Egypt is desert and most people live near the Nile River.

That's an example of a dry climate yielding low amounts of arable land, but you also see it in Iceland (too cold) and Colombia (too high in the rugged Andes mountains).

Arithmetic Density

Physiological Density

Agricultural Density
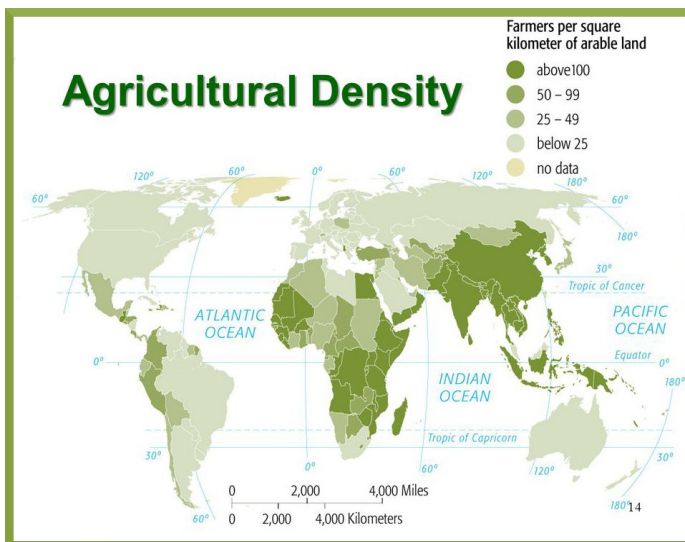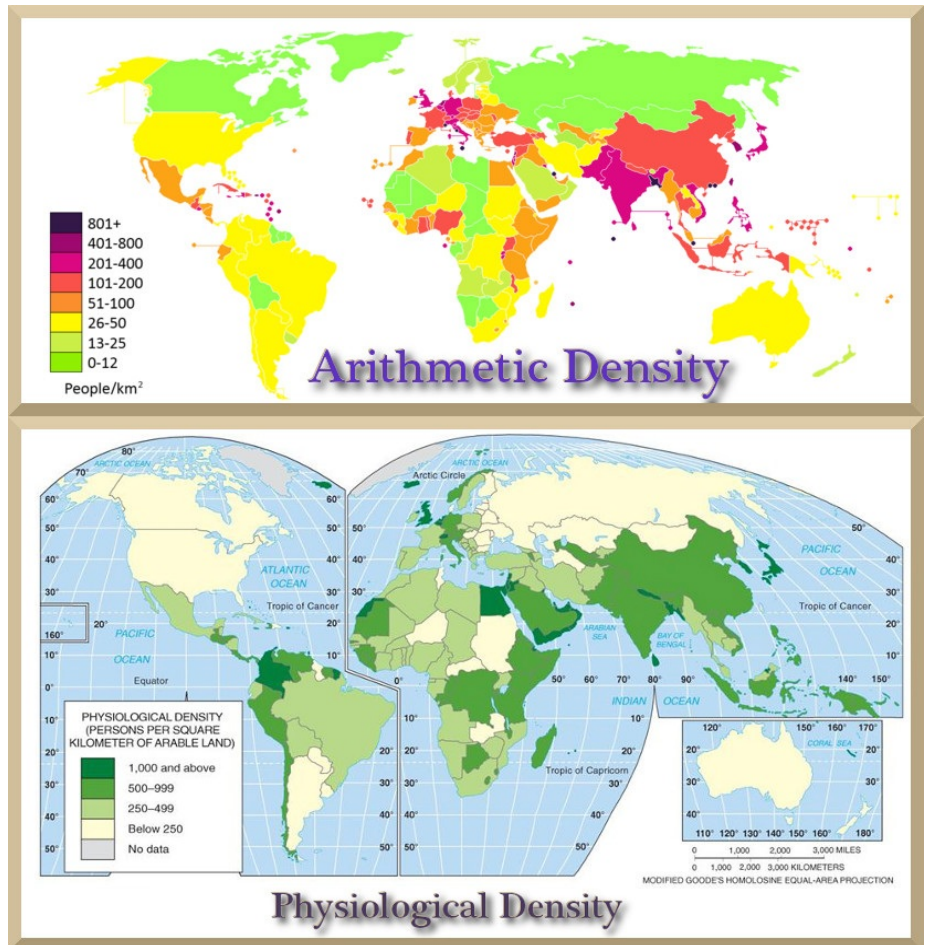
In additional to arithmetic and physiological density there is something known as agricultural density, which is the amount of farmers per unit of arable land.

A higher agricultural density means that the available agricultural land is being used more and may reach its output limit sooner than a nation that has a lower agricultural density. In contrast, an area with a low agricultural density has a higher potential for agricultural production.

Population Pyramids

~ Population Pyramids are two-sided vertical bar graphs that show what percentages of people in certain age groups make up a population. They can also be used to compare male to female population because the left side of the graph is the number of males of each age and the right side is the number of females.

The shape of the graphs can give some indication of what stage of development a country is in, or on a smaller scale, what type of town you may be looking at.

Stage 1	Stage 2	Stage 3	Stage 4
Expansive.	Expansive.	Stationary.	Contractive.
Concave sides.	Straight sides.	Convex sides.	Convex sides.
High birth rate.	Still high birth rate.	Declining birth rate.	Very low birth rate.
High death rate.	Falling death rate.	Low death rate.	Low death rate.
Short life expectancy.	Slightly longer life expectancy.	Long life expectancy.	Longer life expectancy.
Rapid fall in each upward age group due to high DR.	Fall in DR so more people living into middle age.	An increasing proportion of the population is in the 65+ age group.	Higher dependency ratio.
Niger	Haiti	Morocco	Australia

*The chart above shows the variance between countries, while the chart to the right shows how a dangerous main industry (Unalaska, AK), a college town (Lawrenceville, KS) or a retirement community (Naples, FL) can skew a population pyramid.

It also shows how different demographic makeups affect them from a predominantly Asian area (Honolulu, HI) to a Caucasian area (Cedar Rapids, IA) to an African American area (Detroit, MI) to an Hispanic area (Laredo, TX).

~Demographic momentum: tendency for growing populations to continue growing after a fertility decline because of their young age distribution
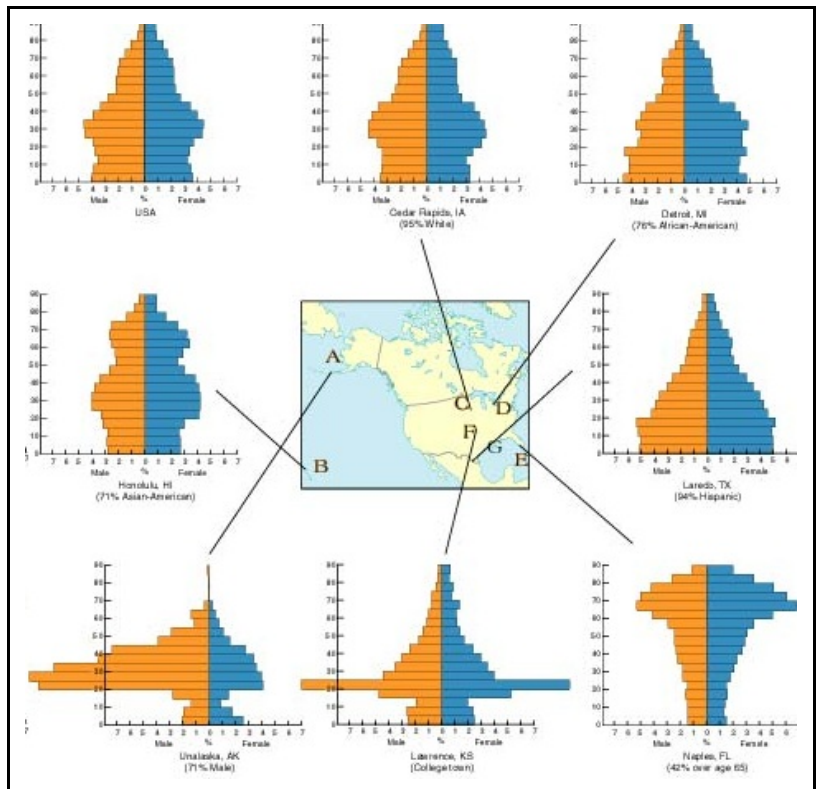
Carrying Capacity (Malthus & Neo-Malthusians)

Carrying Capacity: The number of people that can be supported by the amount food, water and other resources in the area.

~ Thomas Malthus was an English economist who said in 1780:
- a) Rapid population growth is a major cause in human poverty and misery
- b) Food supply increases arithmetically (1,2,3,4), while population increases geometrically (1,2,4,8)
- c) Conclusion: The geometrically growing population would outgrow an area's food supply, thus causing people to die off or leading people into poverty.
   This is Malthus' Population Theory

~ The J-Curve shows how population grows slowly and then skyrockets

Explanation of difference between arithmetic growth and geometric growth:
- ~ If you have 100 people and you increase arithmetically by 10 a year, you will have 110 people in year two, 120 in year three, continuing to 200 by year 11.
- ~ If you have 100 people and you increase geometrically by 10% a year, you would also have 110 in year two, but you would have 121 in year three (10% of 110 is 11), and by year 11, you would be at 234 people
- ~Therefore if food grew arithmetically and people grew geometrically, then by year 11, you would have 234 people, but only food for 200 of them.

Neo Malthusian (Agree with Malthus)	Cornucopian Theory (Disagree with Malthus)
~Think Malthus predictions will come true by 2050. ~ Created the S-Curve (logistic model) to show how at higher population densities, limited resources lead to competition and eventual end to population growth	~ Ester Boserup argued in the 1960s that increase in population would create increase in work force and thus more food. ~ The Cornucopian Theory suggests human invention and innovation will help expand food supply

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S-Curve (Logistic)	J-Curve
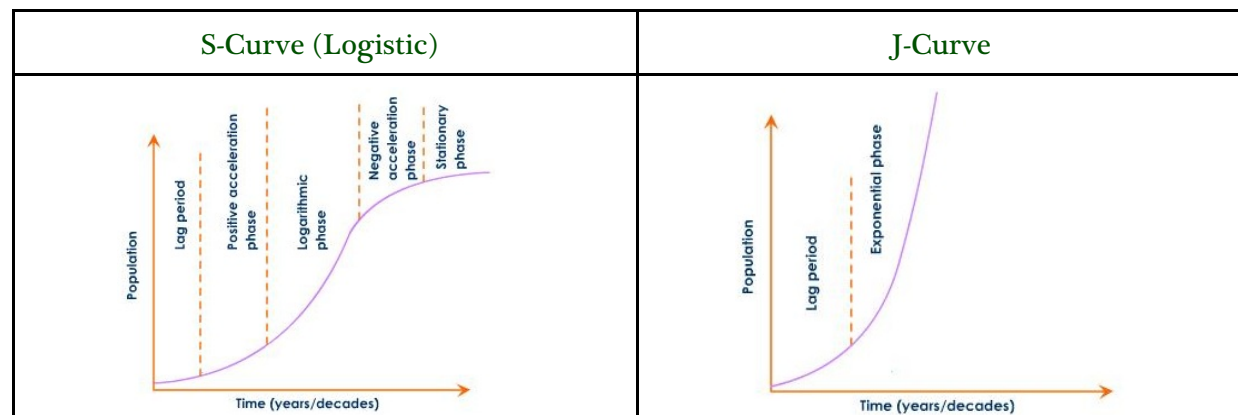
Dependency Ratio

~ Dependency ratio: The number of dependents (people age 0-14 and over age 65) compared with the working population (age 15-64)

There are no countries that have a dependency ratio higher than 100, which would mean there are more non working age people than working age people.

Traditionally, the higher dependency ratio countries are LDCs who have high birth rates and death rates, like the Democratic Republic of the Congo, which has a ratio of 97 as of 2017, way above the world average of 54.

Lately, there has been a trend of MDCs with high aging populations as well, though. Japan is currently up to 68, mostly older.

Calculating the Dependency Ratio

The dependency ratio is simply the number of people of non working age (very old + very young) divided by the number of people of working age.

The point is to see if there are enough people working to support those who are not working

$$\frac{children\ (0\text{-}14)\ +\ elderly\ (65+)}{Those\ of\ working\ age\ (15\text{-}64)} \times 100$$

The resulting figure gives the number of people not working for every 100 working people.

Reasons for Aging Popultion

HEALTHCARE	NUTRITION	SANITATION
The improvements in health care over the last few centuries are astounding. With vaccines against big killerslike smallpox, an increase in antibiotics like penicillin, and better medical procedures raising the life expectancy greatly.	Perhaps no single thing has increased life expectancy more than the mechanization of agriculture and the increased food production that goes with it. Improved ability to transport food and provide food security have also improved nuitrition.	Large cities and dense populations breed diseases like cholera. Public sewage systems go a long way to alleviating those pressures. In addition, the concept of boiling water killing diseases and water treatmant plants has made people safer.

Consequences of aging population: In addition to dependency ratio factors, aging populations are more likely to support cuts to education, increased pensions and support of crime legislation.

Changing Roles of Women and Demographic Change

The total fertility rate is dropping world wide and one of the factors that has the biggest affect on it is the role of women in society.

Education

Consistently, as women are allowed access to education, the less children they have. Below is a graph of 48 low to middle income countries, that demonstrates this:
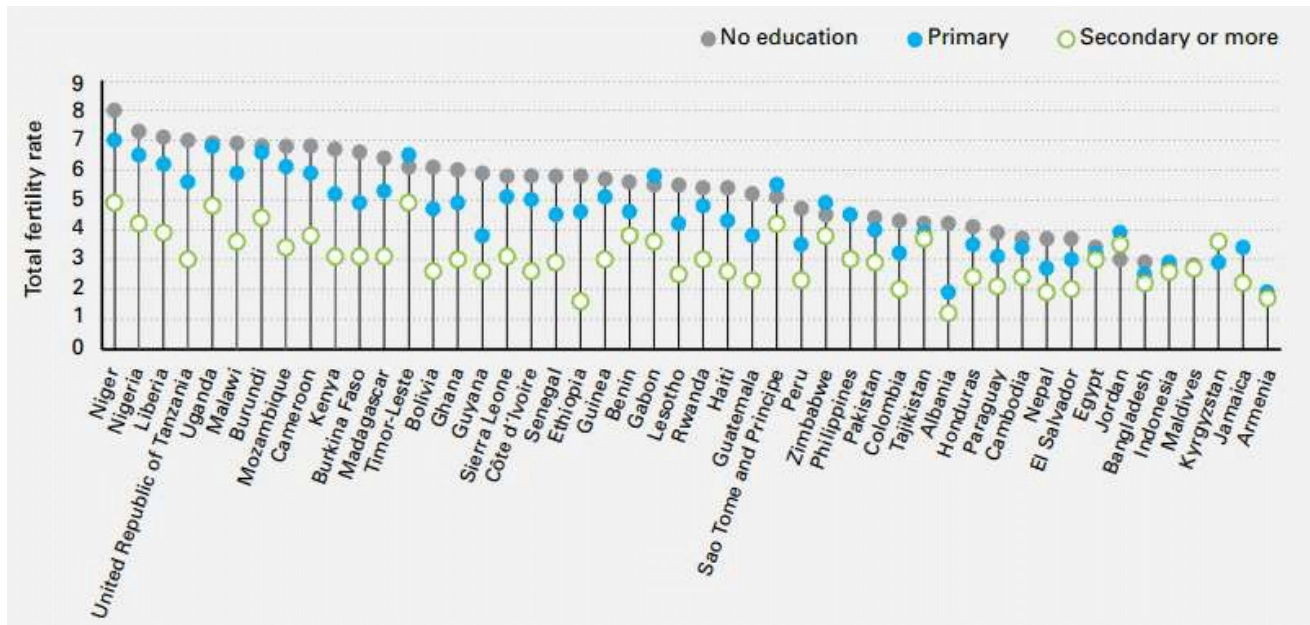
One of the main reasons for this is understanding their opportunities. Another reality, though, is that the further women go in school, the older they are when they start having kids.

For Most Highly Educated Women, Motherhood Begins in the Thirties

Age at birth of first child, by educational attainment

	UNDER 30		30 AND OLDER		MEDIAN AGE
	under 25 yrs	25-29	30-34	35+	
Master's degree+	18%	28%	34%	20%	30 yrs
Bachelor's degree	26	34	27	14	28
Two-year degree/some college	49	29	15	7	25
High school or less	62	22	11	6	24
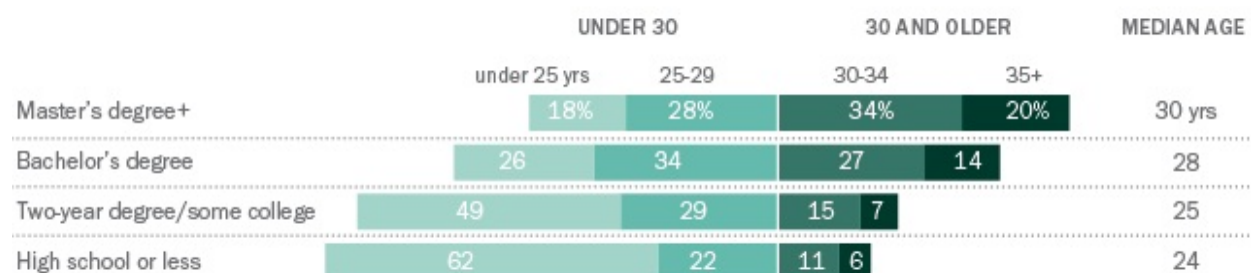
Note: Based on women ages 40-50 who have ever given birth.
Source: Pew Research Center analysis of 2012 Current Population Survey June Supplement

PEW RESEARCH CENTER

Population Policies

Key Terms:

~ Population Policies: Laws enacted by the government to influence the size and
structure of a country's population
~ Propaganda: Biased information used to promote or publicize a particular political
cause or point of view (All of the main population policies use this).
~ Proatalist: Policies encouraging more babies being born and higher birth rates.
~ Antinatalist: Policies discouraging large families and seeking lower birth rates.

Three main types of Population Policies

I. Expansive Population Policies (Pronatalist Policies)
    A. Examples:
        1. France: family friendly policies to
            women's careers (tax breaks, day
            care, maternity leave)
        2. Sweden: flexible work schedules and
            18-month maternity leave to
            support women in work place
        3. Poland: cash incentive for each child
            and even doubled incentive for
            women in poor families
    B. Reasons:
        1. Build Army
        2. Sense of National Relief after war
        3. Population decline
II. Restrictive Population Policies (Anti-Natalist)
    A. Examples:
        1. China: one-child policy
        2. India: tax breaks, education of rural
            locals to teach birth control
    B. Reasons
        1. Slow down explosive growth
        2. Overcrowding problems
III. Eugenics
    A. Encouraging growth of only favored part of
        population (race, ethnicity, social group)
    B. Examples:
        1. Nazi Germany and the Aryan Race
        2. Japan: Low migration allows a very
            "pure" population
        3. Some countries don't allow people
            with certain disorders to have
            children

Pronatalist Propaganda

Antinatalist Propaganda

Eugenics Propaganda
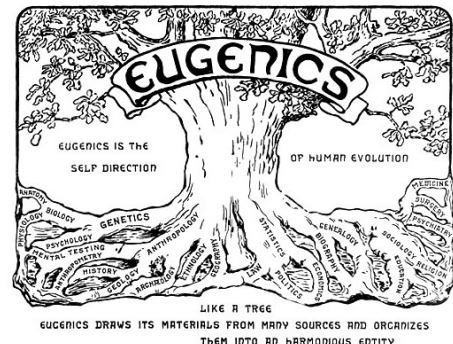
16 Things to Understand About Unit 2 Purple

1) Emigration vs. Immigration

2) Chain migration, step migration, brain drain, guest workers, remittances

3) Push and Pull Factors

4) Intervening Obstacles

5) Transhumance, Transnational Migration

6) Ravenstein's Laws for migration, rural to urban migration

7) Reversing historical trends of migration

8) Colonization of America and its lingering results

9) Demographic Balancing Equation, doubling time

10) immigration policy; xenophobia effects

11) Forced migration (including slavery)

12) Refugees, asylum and internally displaced persons

13) Historical external migration patterns of United States

14) Historical internal migration patterns of the United States

15) Effects of migration on the country of origin

16) Effects of migration on the receiving country

Voluntary Migration

~ voluntary migration: to willingly choose to move
     from one country to another
~ emigrate: to leave your country and migrate to
     another country (starts with e like exit)
~ immigrate: to join a new country after leaving
     somewhere else (starts with i like in)
~ guest (temporary) workers: temporarily live and
     work in a host country
~ chain migration: when people migrate to areas
     where there is already an established
     contingent of similar people or ethnicities
~ step migration: common in LDCs, it is when people
     move in several steps before reaching their
     final destination
~ brain drain: when the most educated people of a
     country migrate elsewhere for "better" life
~ Push factor – A negative aspect of where you are
that causes you to leave
~ Pull factor – A positive aspect of somewhere else that makes you want to go there

Emigrate / Immigrate

Emigrate = leaving; Immigrate = coming

He's an emmigrant!

He's an immigrant!

Travel

Push Factors

Pull Factors

- few services
- lack of job opportunities
- unhappy life
- poor transport links
- natural disasters
- wars
- shortage of food

- access to services
- better job opportunities
- more entertainment facilities
- better transport links
- improved living conditions
- hope for a better way of life
- family links

Sometimes migration is met with intervening obstacles, barriers to migration in many forms:

Economic: Running out of money stops a migrant from reaching destination
Social: Perhaps a migrant gets married along the way and settles down.
Political: A migrant can't get a visa to enter the country they are heading toward
Environmental: A sea, desert, or a mountain ranges proves too difficult to cross

Transhumance, Transnational Migration

Not all migration is a simple move from point A to point B. There are a couple of types of migration that involve a more fluid back and forth – Transhumance and Transnational Migration.

Transhumance: the action or practice of moving livestock from one grazing ground to another in a seasonal cycle, typically to lowlands in the winter and highlands in the summer.

Transhumance is one of the oldest migration patterns, especially in Italy, where they have even requested that Unesco include it on its list of humanity's Intangible Cultural Heritage, but it is practiced many other places.

Shepherds on horseback move with their herds (often sheep, but also cattle in some areas), often accompanied by dogs, to the mountains in the spring before the terrain becomes too arid, and back to the plains in the fall before the snow.

Transnational migration: a process of movement and settlement across international borders in which individuals maintain or build multiple networks of connection to their country of origin while at the same time settling in a new country

TRANSMIGRANTS

Are immigrants whose daily lives depend on multiple and constant interconnections across international borders and whose public identities are configured in relationship to more than one nation-state.

Basically, to a transnational migrant, home means more than one country, rather than a single nation-state.

One country particularly interested in transnational migration is the Philippines, which even has a government agency (the Overseas Workers Welfare Administration or OWWA) dedicated to helping these workers.

The OWWA exists because the Philippines has come to depend on something called remittances for their survival. A remittance is when a migrant worker sends money back to their home family. Remittance are essential to the economy of the Philippines.

Ravenstein's Laws of Migration

1) Economic factors are the main cause of migration.
2) Most migrants only move a short distance.
3) Long-distance migrants are more likely to migrate to urban areas, because they believe cities are more likely to have jobs than rural areas.
4) Most migration is Rural to Urban migration. Starting with the Industrial Revolution, which made less farm workers necessary, people have flocked from the country to the city.
5) Most migration occurs through step migration.
6) Most migrants are younger adults, people from age 20 to 45 with less established jobs.
7) Young men are more likely to migrate internationally, as it poses a great risk, but women are more likely to migrate internally, whether for work or to live with their husbands family.
8) Each migration flow produces a compensating counter-flow.

Migration Flows between 2005-2010
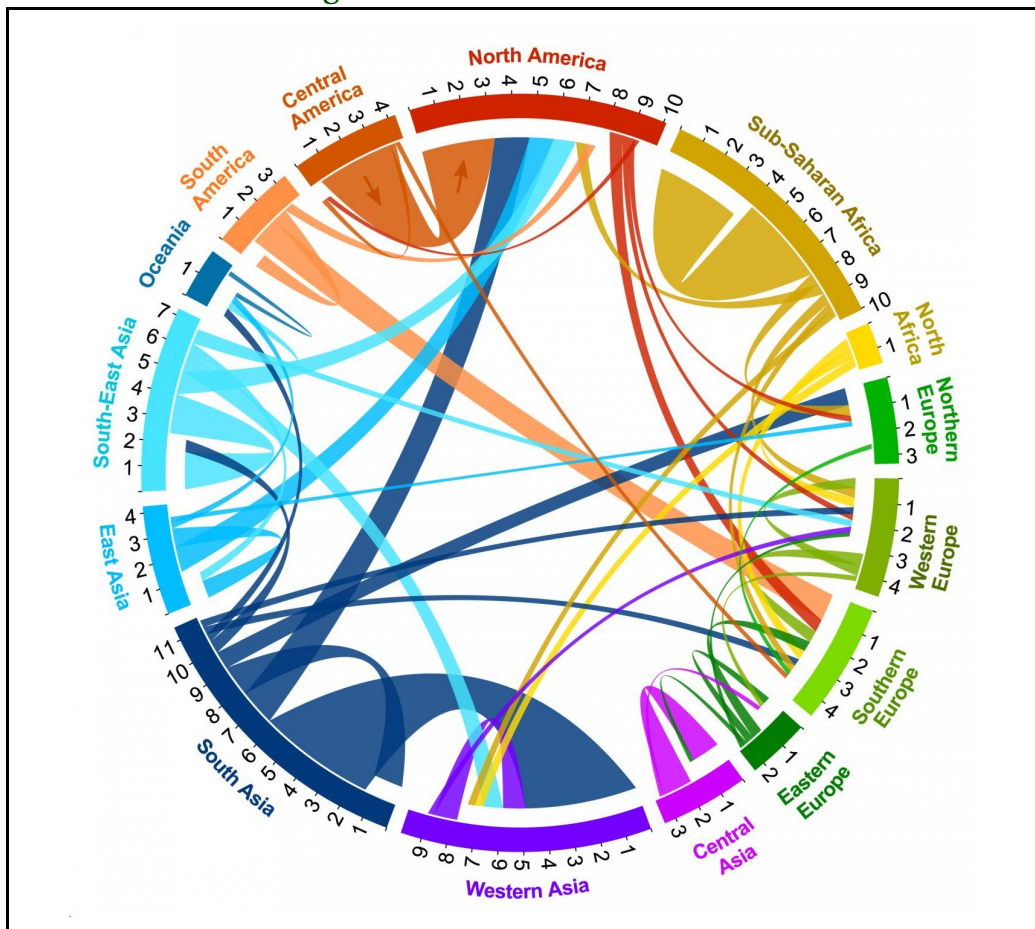
*Numbers represent millions of migrants. Bars touching represent people flowing out. Bars that stop short represent people flowing in. Reversing a historical trend, Europe is almost exclusively seeing in migration rather than out migration.

Colonization of America and Its Effects

In human geography terms, how the Portuguese in Spanish split the world, or how bad Columbus was at predicting the Earth's size (he was very, very bad at it, like off by 6000 miles kind of bad) are not the most important things. What is important in what ways are the ways the differences in the colonization of Anglo and Latin America are still affecting the Americas of today. So, let's take a look at the most important.

1) What religion settled each

Anglo America: For the most part, post Louisiana purchase anyway, the United States and Canada were settled by the English, who were protestant. The most dominant modern religion in Anglo America is Protestant Christianity.

Latin America: Spain, Portugal and France are all Catholic, and so are most of the Latin America countries.

2) Who settled each

Anglo America: Mostly settled by families, breeding a natural conflict between the natives and the settlers over time.

Latin America: Mostly conquistadors. Which naturally fostered in roads into cultural combination as the male conquistadors sought opportunities for families.

3) Type of agriculture/slavery

Anglo America: Tobacco and cotton, which while hard, are not sugar and didn't require the constant influx of slaves. In fact, slave populations could actually reproduce and grow naturally.

Latin America: Sugar. The most deadly of all the slave crops to produce. Requires hot, tropical weather, dangerous machinery, and even the dust if inhaled consistently was dangerous. It required a constant influx of new slaves, because slaves lived on average 6.5 years.

Demographic Balancing Equation, Immigration Policy

Key Terms:

~ Demographic Balancing Equation: An equation that is used to calculate population changes from one year to the next in a given area, based on number of births, deaths, and migrations.

~ Doubling Time: The projected amount of time that it will take for a given population to double.

~ Rule of 70: Associated with the calculation of doubling time. If you divide 70 by the annual percent growth of a country, you will get the number of years it will take its population to double.

The Demographic Balancing Equation

Change in Population =
     (Births - Deaths) + (Immigration - Emigration)

Of course you can also calculate it this way:

Change in Population =
     Total Population Now - Total Population Before

Therefore, since both equal Change in Population:

     Total Population Now - Total Population Before
                         Must Equal
     (Births - Deaths) + (Immigration - Emigration)

If it doesn't then one of your numbers is wrong!

Immigration Policy

Obviously, the amount of migration to an individual country is greatly influenced by that country's immigration policy. The United States has seen many swings in immigration policy through the years, with consistent bouts of nativism (policies protecting the interests of native-born over immigrants) that often are fueled by xenophobia (fear of strangers or the unknown). While this is a hot button issue currently, the cartoon below from 2014 shows it isn't a new phenomenon.

Two types of legal U.S. immigrants:

Permanent: As a lawful permanent resident (LPR), one receives a "green card" is eligible to work, and may later apply for citizenship.

Temporary: diplomats, tourists, students, and workers with temporary visas.

Priority immigrants:
1) People with family in U.S.
2) Workers in high demand areas
3) Refugees from political, racial or religious persecution
4) People from a diverse set of countries

Forced Migration, Refugees

Key Terms:

~ Forced migration: Migration in which the individual or group migrating have no say about where they are going or when

~ Refugee: An individual that leaves his/her homeland to avoid persecution or out of concern for their own personal safety

~ Asylum: Shelter from physical harm and persecution that one country gives to a refugee from another country

~ Internally Displaced Person (IDP): Refugee that did not escape their country

Causes of Forced Migration	Examples to Correspond
~ Natural or manmade disaster ~ Human trafficking ~ War and civil war ~ Fleeing persecution ~ Slavery ~ Development Projects	~ Hurricane Katrina ~ International Sex Trade ~ Civil War in Rwanda ~ Afghans fleeing the Taliban ~ Atlantic Slave Trade ~ Three Gorges Dam construction in China

How Refugees Get to the U.S.

Designed by Ryan Dunsmuir and Human Rights First, based on an original design by Will Coley and Jesuit Refugee Service/ USA (February 2010)
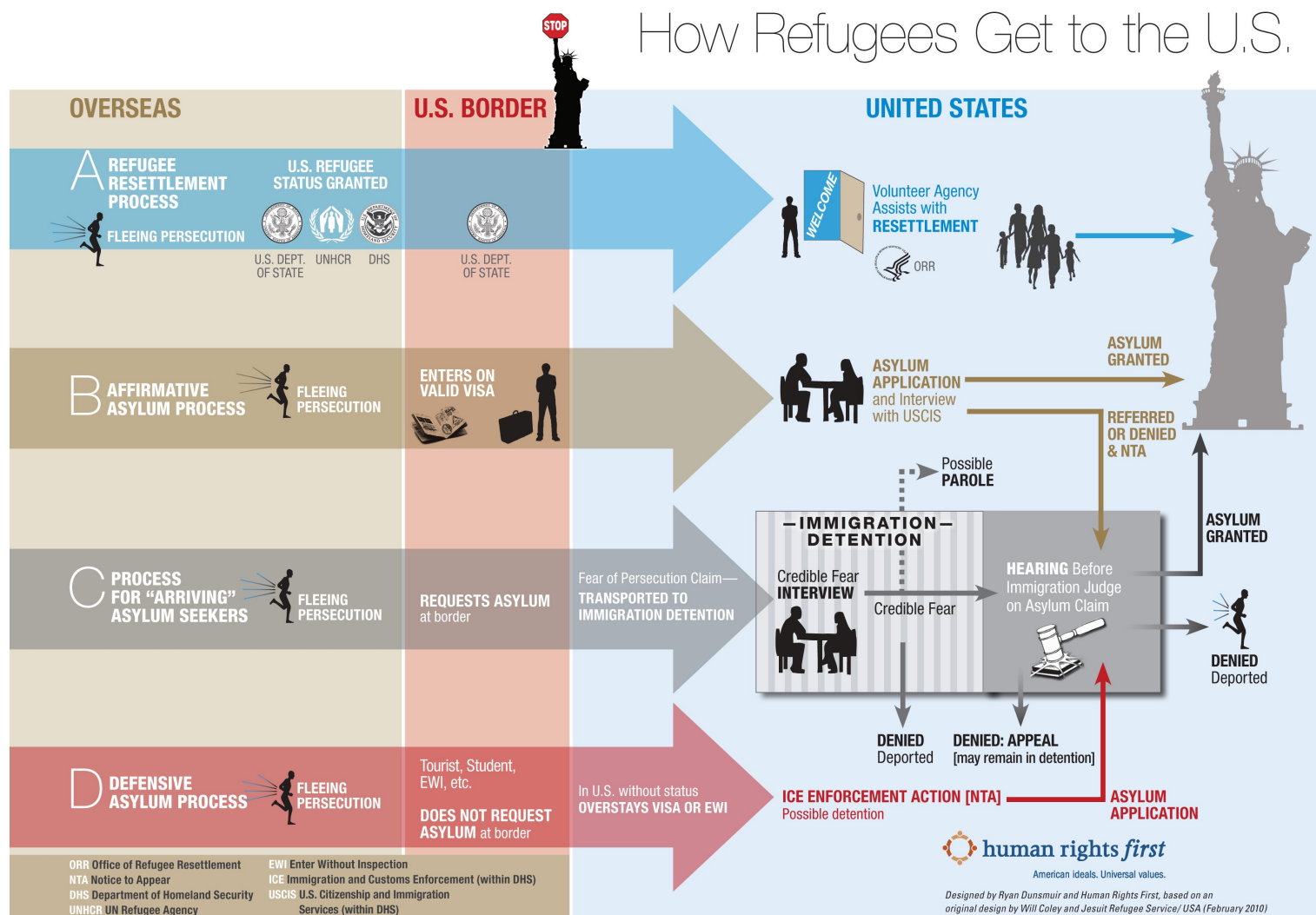
Historical U.S. Migration

~ On average every American citizen moves about once every six years

Type	Early Migration	More Recent Migration
Internal	In the early 20th century, tens of thousands of African Americans migrated from the South to the industrial cities of the Northeast and the Midwest.	In recent decades, more internal migration has occurred to economically dynamic regions of the Sunbelt and Far West.
External	In the early 1800s, immigrants to the U.S. came from Europe, especially Northern Europe (Scandinavia) and Western Europe (Ireland, Germany, Great Britain, France). Later in the 1800s, they came from Eastern Europe (Russia, Poland) and Southern Europe (Italy, Spain, Portugal).	Migration slowed down before the Great Depression. Currently more Asians and Latin Americans are migrating to the U.S. than Europeans, with Hispanics going to California, Texas, Illinois and New York, people from the Caribbean going to Florida and New York and Chinese heading to New York and California.

Internal Migration of the United States 2000-2010

Net Migration Rate (2000-2010) per 100 individuals

- -5 and Under
- -4 to 0
- 1 to 4
- 5 to 20
- Over 20
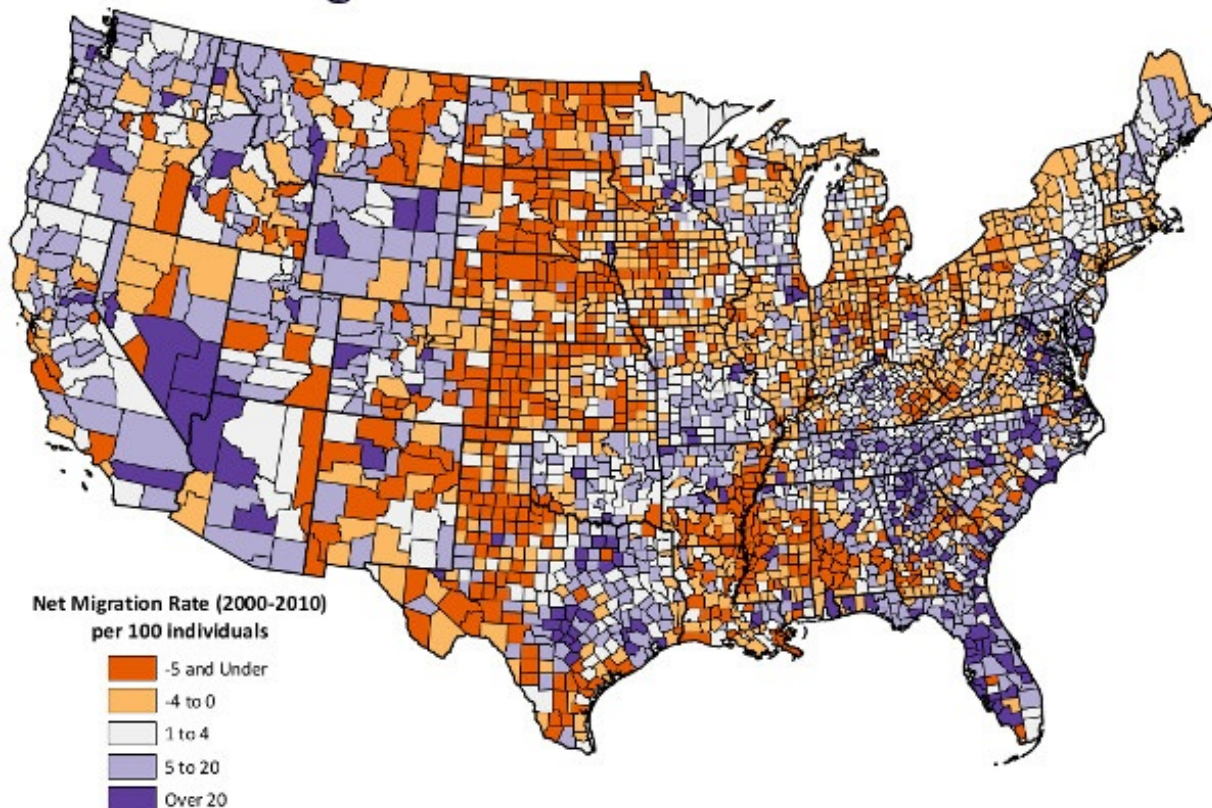
Migratory Effects

Impacts on the destination country	Impacts on source country
~ help alleviate shortages of workers ~ stimulate the economy (new workers pay taxes and buy goods) ~ new ideas/innovations/cultural diversity ~ willingness to take low pay ~ migrant exploitation ~ strain on public services ~ cultural conflicts	~ reduction of overcrowding ~ remittances ~ return or counter migration (return to home county) ~ reduced unemployment ~ brain drain ~ loss of young workers

Zelinsky's model of mobility transition

This theory parallels the demographic transition model defining major changes in migration type over time from the pre-industrial to the advanced industrial society.

Inter-urban: stage 3, 4

Urban-rural: stage 4

Inter-rural: stage 1

Rural-urban: stage 2, 3

Migration

Pre-industrial ⟶ Post-industrial

Zelinsky's mobility transition model
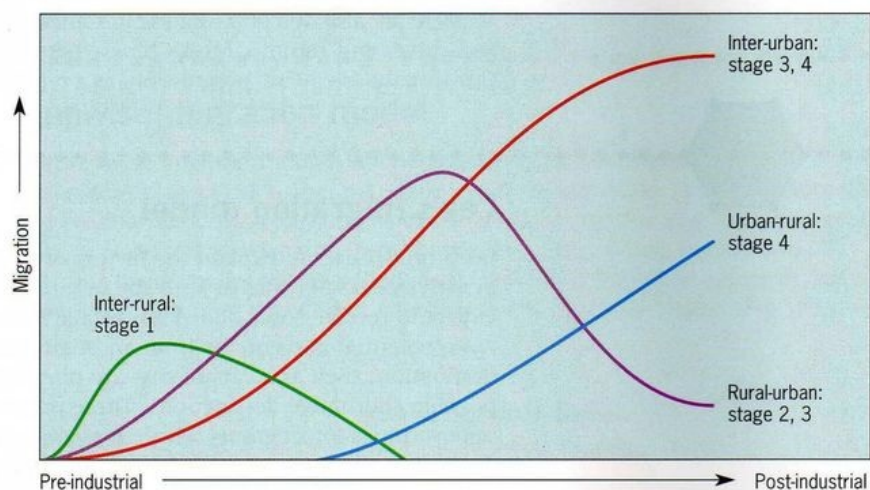
Stage 1: occurs mostly in a subsistence economy. People move about very little and usually only make daily journeys to work in the fields, or less frequent journeys from village to village to sell farm produce.

Stage 2: migration to other countries and cities becomes important. People begin to move home in search of better opportunities. Farm mechanisation reduces the demand for rural workers while industrialisation provides work in urban areas.

Stage 3: overseas emigration tends to fall. Movement from the country-side to the cities remains important. Migration from one city to another and within particular cities also occurs.

Stage 4: migration from the countryside to the cities declines and urban-rural migration (counter-urbanisation) begins. People tend to move home frequently but within or between cities e.g. 1/5 of the population of the USA change residence annually. Ease of travel encourages daily long-distance journeys for e.g. work or education. Long-distance travel for holidays is another feature of this stage.

*The Zelinsky model basically demonstrates how people tend to migrate from LDCs with explosive population growth and toward MDCs, which offer more job oppurtunities.

16 Things to Understand About Unit 3 Gold

1) What is culture? (habits, customs and taboos)

2) Ten major cultural realms

3) Cultural landscapes (formed by agricultural & industrial practices, religion & language, architecture and land use patterns)

4) Food preferences

5) Ethnicity, nationality and race

6) Ethnic neighborhoods and enclaves, the role of women and indigenous communities define the use of space

7) Acculturation, assimilation, syncretism, multiculturalism, nativism

8) Urbanization and globalization change cultural practices (media, technological changes, politics, economics, social relationships)

9) Relocation and Expansion Diffusion (Contagious, Hierarchical, Stimulus); independent innovation

10) Imperialism (Scramble for Africa, Berlin Conference, British Empire)

11) Colonization (Americas, East Indies)

12) Trade (Silk Road, Sand Routes, Triangular Trade, Monsoon Marketplace)

13) Language families and maps show diffusion and convergence of language

14) Accents and Dialects

15) Lingua Francas, Creole languages, pidgin languages

16) Disappearance of Language (endangered, dead, extinct); role of technology and English

Aspects of Culture

Key Terms:

Culture: the customs, arts, social institutions, and achievements of a particular nation, people, or other social group

Habit: a repetitive act performed by a particular individual to the point where it is difficult to give up

Custom: the frequent repetition of an act to the point that it becomes completely characteristic of the group performing the act

Taboo: a restriction on behavior imposed by a social custom

Material culture: (Tangible artifacts) Tools, food, clothing, furniture

Nonmaterial culture: Mental based (language, religion) and Social based (religious organizations, family structure) elements of culture

WHAT IS CULTURE?

Culture — Language, Medical Cure, Religion, Child-rearing Methods, Food, Folk Art, Celebrations, Jokes, Manners, Clothes and Dressing, Working Schedules

Popular Culture	Folk Culture
~ Associated with a large, diverse group of people who are influenced by mass media	~ Homogenous group of people with strong family beliefs and traditions
~ Environment tends to look the same	~ Fear of assimilation
~ Changes rapidly	~ Started so long ago, seems like forever
~ Concentrated on the ages between 15-25	~ Often embraced by older generation
~ Not specific to one place	~ Tied to a specific area
~ Usually comes from MDCs	~ More isolated and separated groups
~ Places seem to lose individual appeal and become more similar (placelessness)	~ Very distinctive from other cultures
~ Greater material demands	~ More rural oriented
	~ Follow tradition and self-sufficient lifestyle
EXAMPLES:	EXAMPLES:
~ Music based on You Tube views and iTunes	~ Cowboy boots, hats and clothing
~ Best selling books and popular films shape opinion	~ The Hawaiian Hula dance, leis
~ The latest social media determines trends	~ Fur and leather for American Indians
	~ Traditional dress of the Amish people

Cultural Realms

Cultural hearth: The area where a unique culture or specific trait develops

Cultural realm: Culture areas that include several regions. Cultures within them have a few traits that they all share like food preferences, language families, religious traditions, or histories.

The Ten Major Cultural Realms

Different cultural realms create different cultural landscapes, because peoples agricultural and industrial practices, their religion and language, their architecture, and the way they use land all vary from realm to realm.

Street signs are a quick way to notice a cultural landscape. In the Islamic world, street signs are often in Arabic. In the Sino-Japanese realm, you will see sign is character script, whether that be Chinese, Korean, or Japanese. India is a land of many languages, including English after years of British colonization. Anglo America is dominated by English (though French words must be on top of street signs in Quebec).

Quebec Street Sign | Arabic McDonald's in Kuwait | Hindi, English, Punjabi and Urdu in Delhi | Shanghai Street Sign

Examples of Cultural Landscapes

Germany: Featuring the ruins of a Medieval castle at the top and typical country German houses built on uneven terrain.

Japan: With a pagoda, symobolic of Buddhism, in the foreground and Mount Fuji in the background at Chureito.

Rio de Janeiro: The famous statue of Christ the Redeemer overlooks Portuguese inspired houses and Guanabara Bay.

Russia: St. Basil's Cathedral in Moscow, featuring onion domes typical of East Slavic culture. In front stands a statue of Prince Dmitri Pozharsky and Kuzma Minin.

New Orleans: Looking down Bourbon Street in the French Quarter with French style buildings and neon signs typical of its raucous reputation.

Israel: A juncture of street signs written in three languages, Hebrew at the top, Arabic in the middle, and English at the bottom.

Food Preferences

Choice of what food to eat is a big deal culturally. To the right is a chart of a bunch of traditional foods by country. As the cartoon at the bottom points out, though, assuming that people only want to eat those ethnic foods is incorrect.

In our interconnected world, many foods have made their way across the world. People are prone to eat a food like pizza anywhere, not just in Italy.

The rest of this page and next are dedicated to typically families across the world and what groceries they buy in a typical week.

Some traditional foods by country

Britain -- Fish and Chips, Scotch Egg, Bangers and Mash, Yorkshire Pudding

Brazil -- Acarajé, Churrasco, Coxinha, Feijoada

China -- Rice, Lo Mein, Chicken, Dumplings, Duck, Sweet and Sour, Soy Sauce

Ethiopia -- Injera (sourdough flatbread), Tibs (sautéed meat chunks), Shiro be Kibbe (legume stew), Berbere (typical spice blend), Kitfo (Ethiopian beef tartare), Coffee, Tej (an alcoholic honey beverage)

Germany -- bratwurst, beer, sauerkraut, pretzels, pumpernickel, bagels

Greece -- lamb, moussaka, ouzo, yogurt, baklava, gyro, olives

Italy -- pasta, alfredo, marinara, pizza, wine, lasagna, salad, risotto, antipasto

Japan -- sushi, tempera, sashimi, unagi, seafood, green tea

Mexico -- tortillas, tacos, burritos, tequila

"Feeding dog food to dogs is not ethnic stereotyping!"

The United States: The Revis Family ($341.98 U.S.)

Australia: The Brown Family ($376.45 U.S.)

China: The Dong Family ($155.06 U.S.)

More Weekly Food

Mexico: The Casales Family ($189.09 U.S.)

Guatemala: The Mendoza Family ($75.70 U.S.)

Mali: The Natomo Family ($26.39 U.S.)

Egypt: The Ahmed Family ($68.53 U.S.)

Italy: The Manzo Family ($260.11)

Kuwait: The Al Haggan Family ($221.45 U.S.)

Bhutan: The Namgay Family ($5.03 U.S.)

Japan: The Ukita Family ($317.25 U.S.)

Ethnicity

The terms are often confused, but they have different meanings.

Race: Dividing people by physical characteristics, which include color and facial structure.

Ethnicity: Dividing people based on a real or presumed cultural heritage and ancestry.

**Key point: you can change your ethnicity, but you cannot change your race. If you adopted a daughter from China, and you raised her here, she would share her adopted parents' ethnicity, but her race would still be Asian.

Learned cultural behaviors are part of ethnicity, but not race. Race is biological, ethnicity is not.

The people in this picture are from multiple races, but are celebrating in the same ethnic style, albeit with a cheesy fiesta party set.

Ethnicity vs. Nationality
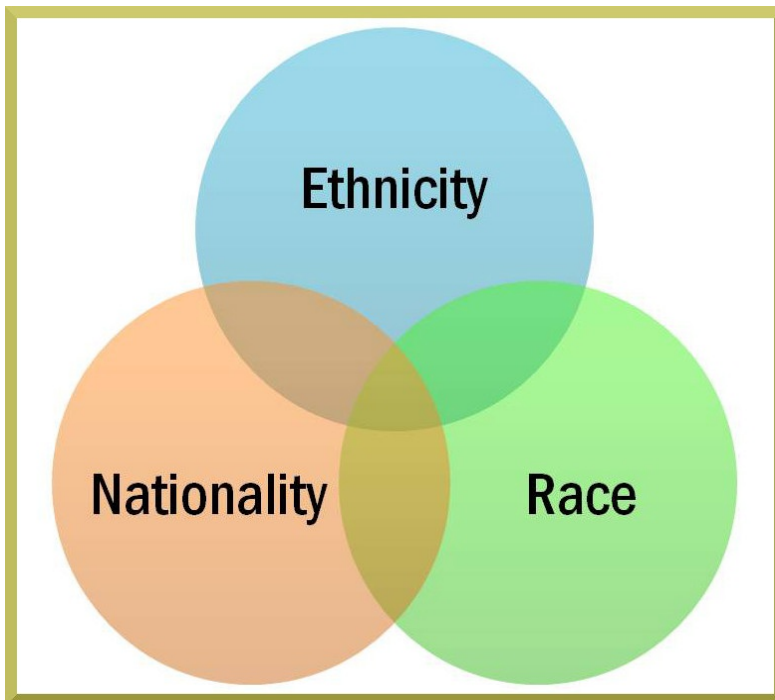
In case that wasn't enough confusion, let's add to it a bit.

Nationality: Dividing people based on a legal attachment and personal allegiance to a particular place as a result of being born there

Ethnicity and nationality are even easier to confuse than race and ethnicity.

The big difference is this – nationality is a relationship between a person and a political state, whereas ethnicity is a an identification with a particular culture or people group.

Dominant Culture and Use of Space

There are practical reasons to put things in different places when organizing a county. People tend to settle near fresh water, near good farmland, near job opportunities. There is also much to be said about which people are settled in the ideal places, and who is making those decisions.

There are historical examples on all continents of dominant cultures pushing others aside. Take America, for example. The indigenous people of America (sometimes known collectively as American Indians, though each tribe was its own ethnicity), were systematically moved from away from the better locations to worse and worse locations, with events like the Trail of Tears moving them thousands of miles from home.

Once a dominant culture establishes itself, it is not just the indigenous population, of course. Many new groups of immigrants are isolated in areas as when (although, in fairness sometimes this is out of familiarity and choice).

These groups find themselves in ethnic enclaves (small areas of high concentration of one ethnicity inside a country. These usually come in two forms:

1) Ethnic Islands like Stromsburg, NE (Swedish), were a group separates themself by isolating in a rural area.
2) Ethnic neighborhoods like Chinatown or Little Italy, where an ethnic group isolates themself inside a city (when this is forced, it is often called a ghetto).

THE WORLD´S INDIGENOUS COMMUNITIES

370 million indigenous people

+90 countries

+5,000 indigenous peoples

Speaking 4,000 languages of 7,000 spoken worlwide

ASIA: 273,000,000

EUROPE: 250,000

AMERICA: 39,750,000

AFRICA: 50,000,000

OCEANIA: 7,000,000

Fewer than 5% of the world population

15% of the world´s poor

Occupying 22% of land on Earth

Custodians of 80% of the planet´s biodiversity

The United Nations approved its Declaration on the Rights of Indigenous Peoples in 2007, establishing a universal framework of minimum standards for the dignity, well-being and rights of indigenous peoples across the world.

Women at Work
Percentage of Women's Representation in Selected Occupations

98% Speech-Language Pathologists
93% Dental Assistants
82% Social Workers
69% Physical Therapists

60% Pharmacists
36% Lawyers
11% Civil Engineers
1% HVAC and Refrigeration Mechanics and Installers

bls.gov

Women in Management Occupations

74% Human Resources Managers
71% Social and Community Service Managers
65% Education Administrators
46% Food Service Managers

45% Marketing and Sales Managers
27% Chief Executives
26% Computer and Information Systems Managers
7% Construction Managers

bls.gov

Gendered spaces

There is also a nature of how we organize are space according to gender. For years, the majority of women in the business arena have worked as secretaries and assistants in wide open sections of offices, while the power brokers, mostly men, have made deals behind closed doors.

The charts to the left demonstrate some of this disparity, which is changing over time. In major cities in India, there are very few public toilets, and almost none of for women. They weren't necessary when most women weren't working, but now it makes a gendered space that reminds us of the disparity.

Assimilation, Acculturation, Syncretism, Multiculturalism & Nativism

Assimilation

When people completely abandon their old culture and adopt the culture of their new country.

Example: A teenager gives up the folk music of his/her homeland and submerges into American pop music.

Assimilation
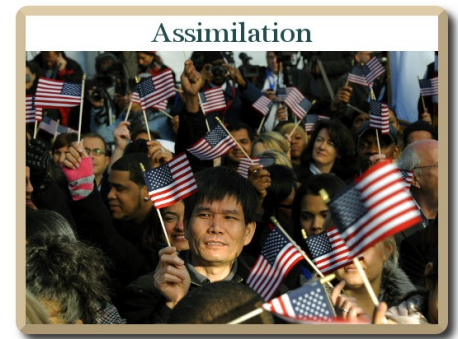
Acculturation

Acculuration
Combination of U.S. and Colombian Flags

When people change some of their cultural habits when they arrive in their new culture, but maintain other traditions.

Example: Immigrants choosing to celebrate the fourth of July in America, but also their former national holidays.

Syncretism

The blending of beliefs and practices between different cultures to create something new.

Example: When African slaves came to America, they blended their old religion with Roman Catholicism to create new religions.
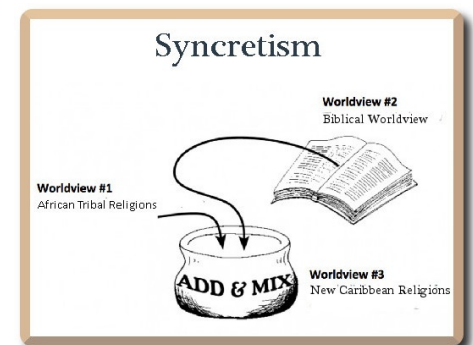
Syncretism

Multiculturalism

Multiple cultures existing in the same place, which goes with the concept of cultural relativism (each culture should be experienced from its own point of view rather than judged against other cultures).

Example: The 18 ethnic neighborhoods in New York City

Nativism

The policy of protecting the interests of native-born inhabitants over those of immigrants, which pairs with the concept of ethnocentrism (all other cultures are evaluated against one's own culture for comparison).

Example: Limits on number Chinese immigrants in the 1880s.

Nativism

Urbanization, Globalization and Their Effect on Culture

Because culture is not static, it is always changing, for each ethnic group, for each country and for each individual. Some have argued that culture itself is anything that you have learned from another individual. If that is the case, the more interaction there is between people, the more culture will change and adapt.

As more people move to cities, the more they interact with new people from various backgrounds. As more technology arises, from telephones to television to the internet to cell phones to social media, the more interaction is fostered.

This interconnection can have big affects of folk culture. Some of it, like the Amish in Pennsylvania, can become marginalized and seem archaic. Other sections of it, like hip hop music that started out of African American culture in the inner cities of Detroit, New York, and Atlanta in the 1970s, can become pop culture, though in doing so, changes as it interacts with other cultures.

Types of Diffusion
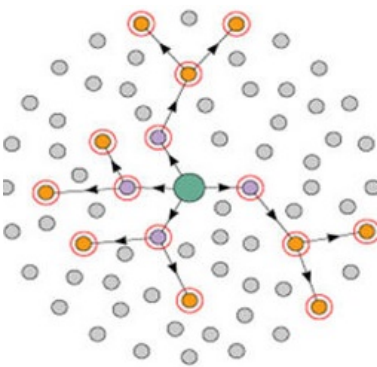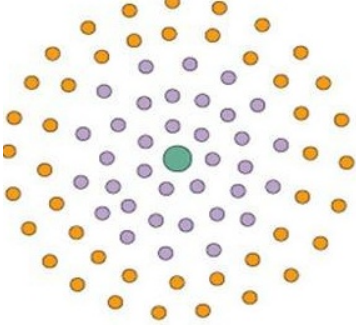
Key terms:
- ~ Diffusion: the movement of innovation from the hearth to other areas due to the interaction of people, social networks, news, music or advertisement
- ~ Independent innovation: two distinct people/groups come up with approximately the same idea around the same time without communication

Two main types of diffusion

Expansion Diffusion	Spreading an idea outward from contact with the idea
Relocation Diffusion	The spread of an idea by people migrating and moving with the idea

Further, expansion diffusion can be broken into three styles

Hierarchical Diffusion	Contagious Diffusion	Stimulus Diffusion
When an idea travels in rank order from areas of higher power to areas of lower power	When an idea spreads quickly regardless of social class, economic position or power	Where the idea is not completely accepted because of barriers, but a different form of the idea may be
		Reindeer farming in Siberia
Examples: ~ Corporations where the CEO makes a decision and passes it down ~ The Military where the generals set the agenda ~ Catholic Church Doctrine ~ When a Major City starts a trend and it filters down to increasingly smaller towns	Examples: ~ The early spread of Islam that radiated out from Mecca at a continuous rate ~ Early Buddhism also spread by contagious diffusion as it started as a spin off of Hinduism in India and spread along the Silk Road to China and other places	Examples: ~ Burgers at McDonald's spread to India, but without beef because of the cow being sacred in India ~ Using a touch screen on a phone to access the Internet rather than using a standard keyboard or mouse

*It is also possible to have reverse hierarchical diffusion, where something spreads from places of lesser to greater social influence. The best example of this is Walmart, which started in small towns in Arkansas and spread to big cities.

Imperialism, Colonialism and Decolonization

Key Terms:
> ~ Colonialism: the establishment, exploitation, acquisition and expansion of colonies in one territory by people from another territory or country
> ~ Decolonization: the undoing of colonialism (oft linked to independence of the colonies)
> ~ Imperialism: the forceful extension of a nation's authority by territorial conquest or by establishing economic or political domination of other nations.

SO WHAT'S THE DIFFERENCE BETWEEN COLONIALISM AND IMPERIALISM?

The answer to that could be complicated, but let's try to make it as simple as possible. If you move your people on to unoccupied land (even if it is unoccupied because you killed everyone there), then it is colony. Your people, living elsewhere. If you take over another land and then begin to rule their people, then you are building an empire. That's a really simplified version, and it is more complicated than that, but that should give some basics.

Colonialism = Settle Region with your people   Imperialism = Rule Their People

Both colonialism and imperialism can have huge negative affect on the region that is conquered, but imperialism has the added nuisance of the imperial power sometimes dividing territory with no regard to traditional ethnic boundaries. For example:
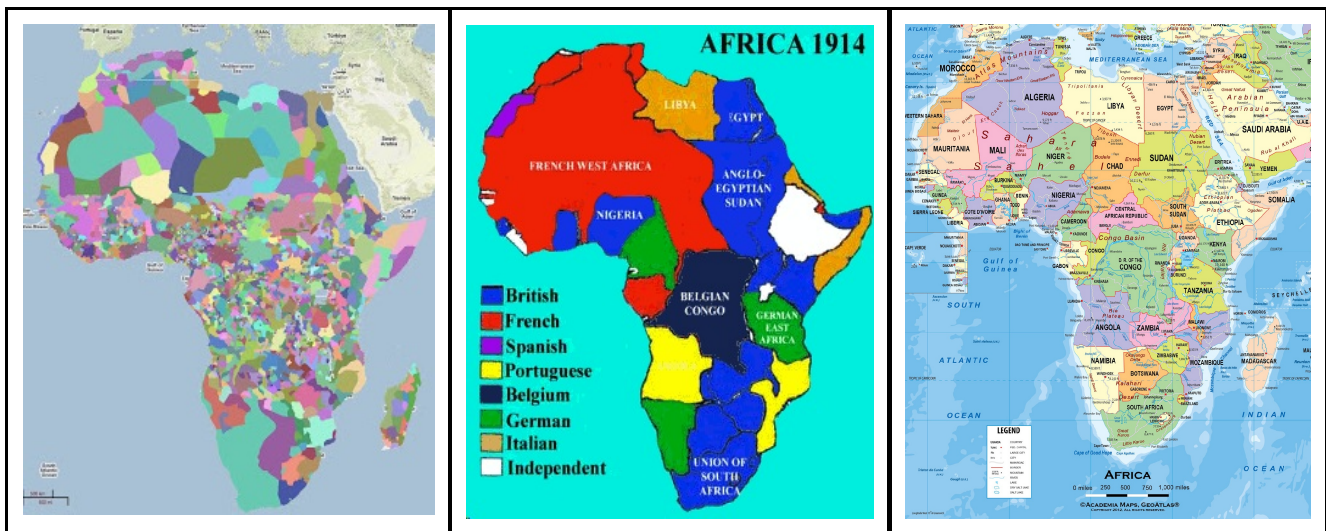
In the mid to late 1800s, European powers (Great Britain, France, Germany, Belgium, Italy, Portugal, Spain), started what is known as the Scramble for Africa. Basically, the European powers were looking to gain as much power and land in their empires as possible. Of course, when several major powers are trying to get the same thing, this inevitably leads to conflict.

To settle these conflicts, the European powers held the Berlin Conference to set ground rules for splitting the continent up, which included opening the major rivers up to trade, establishing regions of control and abolishing slavery.

It also led to a complete disregard for classic ethnic lines. The map on the left represents where the ethnic lines of Africa were before the Europeans. The map in the center is the result of the Berlin Conference, and the one on the right is present day. Ethnicities were torn apart or pushed together with rivals. Ethnic conflict stemming from this imperialism is still going on.

Diffusion Through Colonization

Below is a fairly comprehensive list of European countries and their colonies from all over the world. Even when colonial powers leave an area they leave behind some of there culture.

Former Colonial Holdings — *settlers there, strong influence, past control of part/all

Region/Country	Britain	France	Spain	Portugal	Netherlands	Belgium	Germany	Italy
North America	U.S, Canada*, Belize, Jamaica, Bahamas, Bermuda	Canada*, Haiti, Carribean islands	Central America, Florida, SW U.S., Cuba, Dom. Rep, Puerto Rico*		Some Car. Islands			
South America	Guyana Falkland Islands	Fr. Guiana (still)	All except those ← listed →	Brazil	Suriname			
Africa	Egypt, Sudan, Uganda, Kenya, Zambia, Botswana, Zimbabwe (Rhodesia), Malawi, South Af.*, Nigeria, Ghana, Lesotho, Sierra Leon, British Somaliland, Gambia	Morrocco, Algeria, Tunisia, Mauritania, Mali, Cote D'Ivaire, Senegal, Niger, Chad, Cent. Af. Rep, Madagascar	Western Sahara, Equitorial Guinea	Angola, Mozambique	*S. Africa	Belgian Congo (Zaire; DRC) Rwanda, Burundi	Tanzania, Cameroon, Namibia, *S. Africa	Libya, Eritrea, lower Somalia
SW Asia	Israel, Jordan, Iraq	Syria						
S, SE, E. Asia	India, Pakistan, Bangladesh, Burma, Malaysia, Papua New Guinea, Australia, New Zealand, Hong Kong	Vietnam, Laos, Cambodia	Philippines* (ceded to U.S.)		Indonesia			

U.S. – Panama, Puerto Rico, Guam, American Samoa, Philippines, Hawaii (Canal Zone)

Denmark – Greenland, Faroe Islands

Tinikling: The National folk dance of the Philippines which was created during the spanish colonial period and is danced to Spanish music called a rondalla.

The streets of the Algerian capital Algiers, lined with French style buildings, during the Smile Revolution, where the people called for the resignation of president Abdelaziz Bouteflika, asking the French to stay out of it.

Diffusion Through Trade

One of the biggest ways that ideas have crossed boundaries is through trade. People moving goods back and forth have contact with each other's cultures and traditions. Here's a look at some of the biggest exchanges.
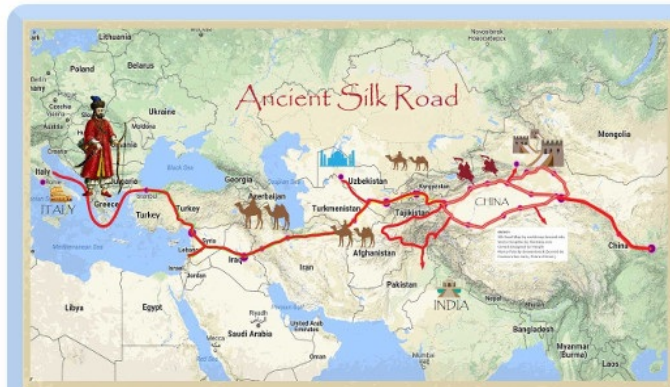
The Silk Road

Years of operation: c. 115 BCE to 1450 CE

Scope: Varied from China to Europe

Products Traded: Silk, spices, lapus lazuli, a fair portion of Black Death

Ideas Traded: Buddhism, Islam, silk production

Sand Routes of Trade in North Africa

The Sand Routes

Years of operation: c. 300 CE to 1600 CE

Scope: The full length of the Sahara desert

Products Traded: Gold, salt, copper, textiles

Ideas Traded: Most notably Islam, the Arabic language, patterns of slavery, camel saddles

The Triangular Trade

Years of operation: 16th to 19th centuries CE

Scope: The whole of the Atlantic Ocean

Products Traded: Rum, Sugar, Manufactured Goods, Slaves

Ideas Traded: Religions, chattel slavery

The Monsoon Marketplace

Years of operation: c. 2600 BCE - 1600s CE

Scope: The Indian Ocean

Products Traded: Spices, textiles, minerals

Ideas Traded: Islam, Christianity, Monsoon Navigation Techniques

Language Families

Language families are groups of languages with a common ancestor. The chart on the right show the major language families, along with the branches of the Indo-European family (which includes English), and the specific languages that fit into two of the branches.

More than half the people in the world speak an Indo-European language or a Sino-Tibetan language (Mandarin Chinese). Other major families include Afro-Asiatic (Arabic), Niger Congo and Austronesian.

families	branches	languages		
Indo-European	Celtic			
Uralic	Germanic	English		
Altaic	Latin	Dutch	Italian	
Sino-Tibetan	Slavic	German	Spanish	
Malayo-Polynesian	Baltic	Frisian	French	
Afro-Asiatic	Hellenic	Flemish	Romanian	
Niger Congo	Illyric	Afrikaans	Portugese	
Dravidian	Hittite	Yiddish	Romanish	
Mayan	Armenian	Danish	Ladino	
Independent	Persian	Norwegian	Provencal	
et. al.	Sanskrit	Swedish	Catalan	
	Tokharian	Icelandic	Galician	
		Faroes	Moldavian	
		Gothic	Latin	
			Oscan	
			Umbrian	

A look at where the language families originated
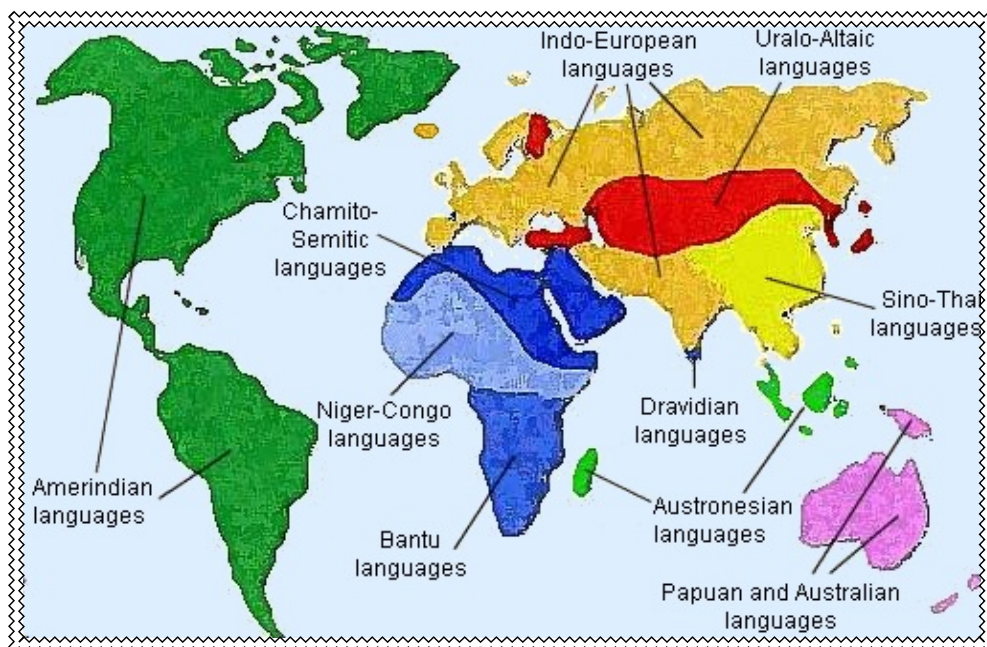
*Chamito-Semitic is synonymous with Afro-Asiatic

Key Terms:

~ Language Divergence: Where an original language breaks off into two entirely different languages

~ Language Convergence: where two languages become more like each through a prolonged exposure to each other

~ Standard Language: the version of a language that is viewed as proper

~ Dialect: a regional variation of a language

Convergence and Diffusion of Languages

Language Diffusion: The movement of languages though migration.

For example: Indo-European languages all started somewhere in Eurasia, but English is Indo-European language and we do speak a bit of it in North America and in Australia. Spanish and Portuguese, for the record, are also Indo-European.

One projection on the spread of Indo-European languages out
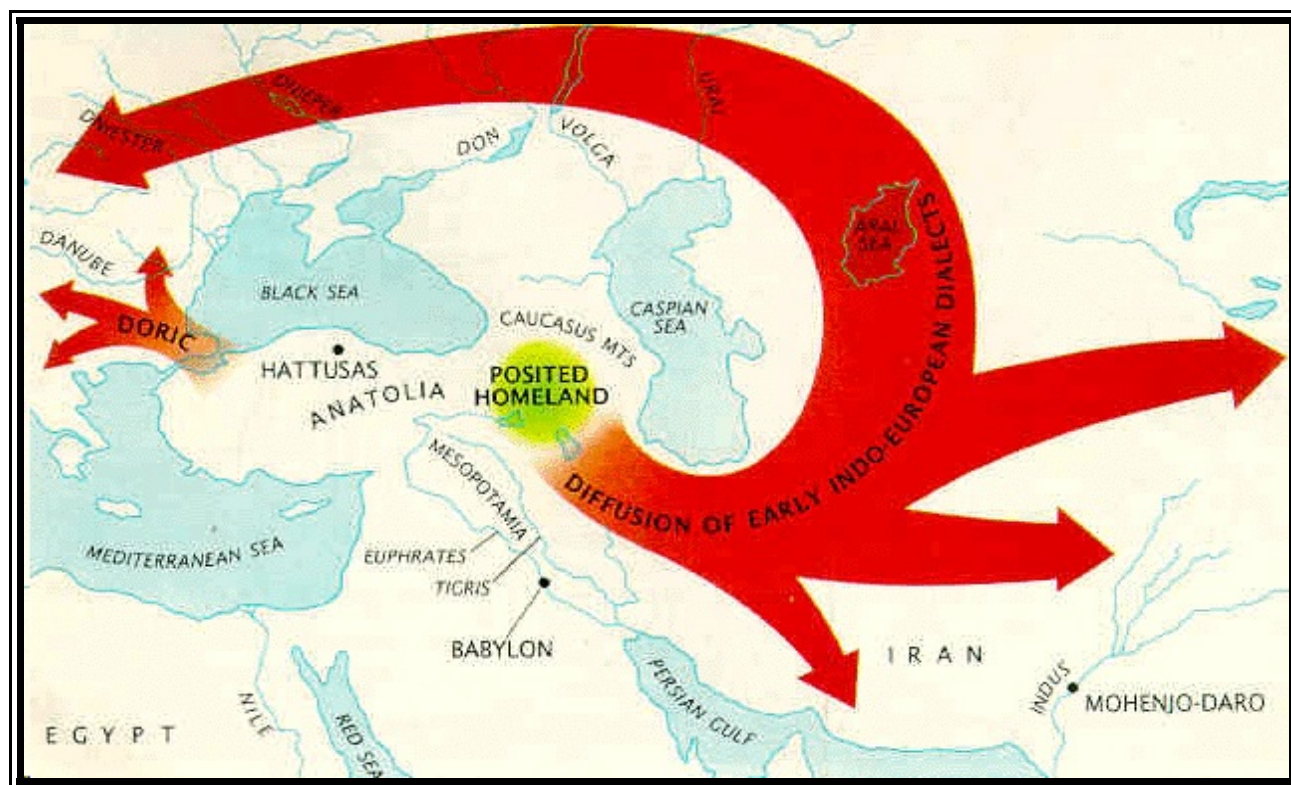
Now, obviously, all people who speak Indo-European languages do not speak the same language. Already mentioned above, English, Spanish and Portuguese are all Indo-European languages. As people start to move apart, their languages start to change from each other.

First they splinter into dialects, which are a particular variety of a language with distinctive vocabulary, grammar and pronunciation. Think about British English and American English. Many things that were developed after the split from Britain, have different words in each.

American word	British word
truck	lorry
elevator	lift
solitaire	patience
sandbox	sandpit
French fries	chips

If the two dialects are separated for long enough then they were break completely away and become a separate language (like German and English).

Language convergence: where two languages become more like each through a prolonged exposure to each other

Lingua Franca, Pidgin, Creole

Language barrier: is an expression used to indicate the difficulty people face when they have no language in common to attempt to communicate with each other.
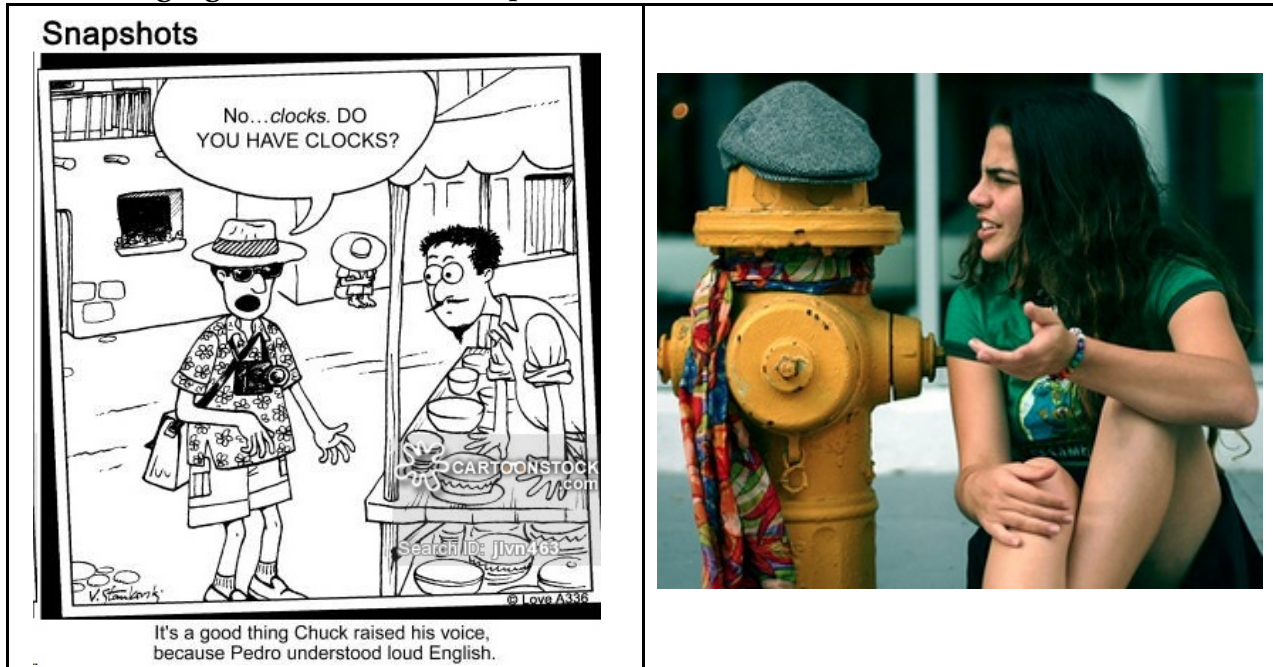
As the cartoon indicates, no amount of volume will overcome that the other person just doesn't understand the words you are saying. On the other hand, there are over 7,000 languages on the planet, so it is just not possible for one person to learn them all. Over time, humans of common up with a number of ways of coping.

1) Lingua Franca
   ~ Basically, a Lingua Franca is a language used by speakers of different languages for the purpose of trade
   ~ English and Mandarin Chinese, as the two most spoken languages in the world, are often used as Lingua Francas. Most people Europe, for example, learn to speak English in school, so they can communicate with each other in English if neither of the speaker's native tongues is English
   ~ The term Lingua Franca is an Italian phrase for the pidgin language Sabir which was used by traders in the Mediterranean to speak across language barriers from the 11th to 19th century

2) Pidgin Language
   ~ Language created when two or more languages combine in a simplified manner
   ~ Sabir, for example, combined elements of Italian, Spanish, Portuguese, Turkish, French, Greek and Arabic, helping it become the region's Lingua Franca

3) Creole Language
   ~ A pidgin language that has become the native language for a group of people

The Disappearance of Language

Key Terms:

> ~ Extinct Language: a language without any speakers
>
> ~ Dead Language: a language that no one speaks as their first language but is still understood like Latin. A dead language, can be revived for a specific reason, which happened with Hebrew.
>
> ~ Endangered Language: a language at risk of becoming extinct as its speakers die or shift to speaking another language

From the second century CE until the 19th century, Hebrew was a dead language. The language began a transformation from sacred language of Judaism to spoken and written language when it was used as a lingua franca for Jews returning to the Holy Land. This was solidified when Israel became a country in 1948 and adopted Hebrew as its official language.

The revival of Hebrew is unique. There are no other examples of a natural language without any native speakers subsequently acquiring several million native speakers, and no other examples of a sacred language becoming a national language with millions of "first language" speakers.

Facts of Endangered Languages	Contributing Factors	Significance
~ One language dies every two weeks ~ There are 7000 languages in the world, but 78% of people speak one of the largest 85 ~ Nearly half the Earth's languages will likely go extinct in the next century ~ Languages tend to fade over a number of generations rather than disappear suddenly	~ Involuntary assimilation (forcing people to speak another language like the U.S. did with American Indians) ~ Disease or invasion wiping out all speakers of a language ~ Descendants choosing to use another language than that of their ancestors (tends to happen more frequently as people adopt mega-languages like English to participate in trade and raise social status)	~ Can weaken and endanger the world's cultural diversity (especially when children abandon a language and have trouble communicating with their elders) ~ When a language disappears it takes with it the specific words that describe what a culture values; how a culture thinks, describes and experiences things

16 Things to Understand About Unit 3 Purple

1) Ethnic vs. Universalizing Religions

2) Major World Religions and their hearths

3) Judaism (father of Islam and Christianity, Jewish Diaspora, Israel)

4) Hinduism (father of Buddhism, Caste system, Ganges river)

5) Branches, Denominations and Sects

6) Christian Branches (Catholic, Eastern Orthodox and Protestant)

7) Christian Denominations (Subset of Protestant: Lutheran, Anglican, Baptist, Methodist); Christian Sects (Mormonism)

8) Spread of Christianity in New World and Current locations of denominations and branches

9) Islam (Mohammed, Qa'aba, quick spread, Shi'a and Sunni, Religious Landscape)

10) Buddhism (Four Noble Truths, Success in China, Typical Landscape)

11) Religious Pilgrimages

12) Sikhism

13) Fundamentalism and Secularism

14) World Religious Conflicts

15) Sense of Place is associated with Language and Religion; neolocalism

16) Toponyms

Universalizing vs. Ethnic Religions

~ Universalizing religion: A religion that actively converts and spread as they believe their belief systems are universal in appeal and meant for everyone (Christianity, Islam, Buddhism), whose holidays are often centered around events in their founder's lives

~ Ethnic religion: A religion tied to a specific place and people where people are not trying to actively convert, spread through relocation diffusion (Hinduism, Chinese folk religions), whose holidays often center around nature and explanations of natural phenomena

Top five religions by practitioners (2012):

1) Christianity (Universalizing religion)   2,400,000,000
2) Islam (Universalizing religion)   1,800,000,000
3) Hinduism (Ethnic religion in India)   1,115,000,000
4) Buddhism (Universalizing religion)   521,000,000
5) Chinese folk religions (Ethnic)   394,000,000

It is worth noting that more people choose not to practice any religion (1,200,000,000) than choose the largest ethnic religion. Judaism, though important for its influence on Christianity and Islam, has just 14,500,000 practitioners (which ranks 10th)

It is easier for universalizing religions to spread worldwide than ethnic religions because they are actively trying to convert people.

Diffusion of the three major universalizing religions
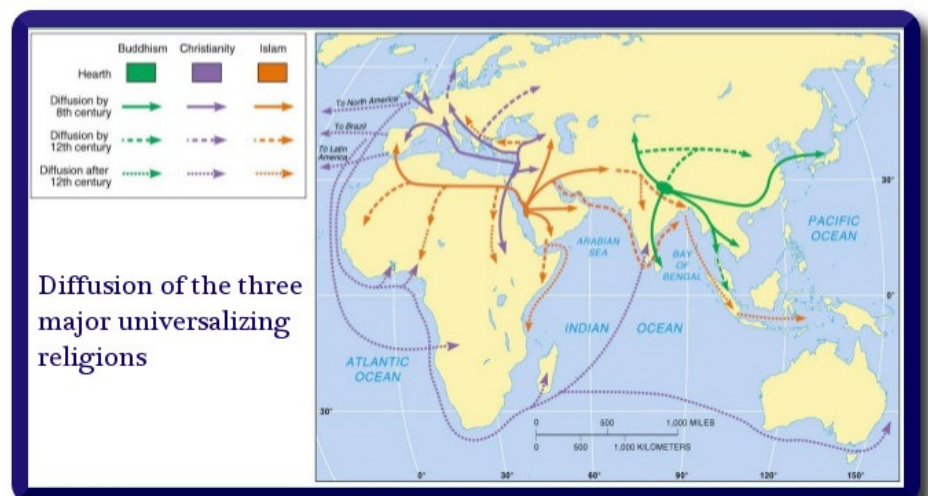
Universalizing Religions

Religion	Christianity	Islam (Muslims)	Buddhism
Divisions	Catholic, Eastern Orthodox & Protestant	Sunni &Shia	Theravada & Mahayana
Diffusion	Started in Middle East and diffused to Europe	Started in Mecca and moved across North Africa and into SE Asia	Started in India, but found more success in China and Sri Lanka
Beliefs	~ Founded by Jesus, his apostles and St. Paul ~ Holy Book: Bible ~ Ten Commandments ~ The Holy Trinity ~ Pray in Churches	~ Founded by Muhammed ~ Holy Book: Quran ~ Sacred City: Mecca ~ Five Pillars of Islam ~ Pray in Mosques	~ Founded by Siddhartha Guatama (Buddha) ~ Nirvana (escape from death/rebirth cycle) ~ The Four Noble Truths ~ Pray in Temples
Symbols	Cross & Steeple	Crescent & Minarets	Lotus & Pagoda

World Religious Hearths

The world's major religions started in two major areas.

1) India: Hinduism, Buddhism, Sikhism

2) Southwest Asia: Judaism, Christianity, Islam

Notably, no major world religions started in Europe, though Christianity became closely associated with the continent after spreading from its hearth. Likewise Buddhism has seen much of its success outside of India.
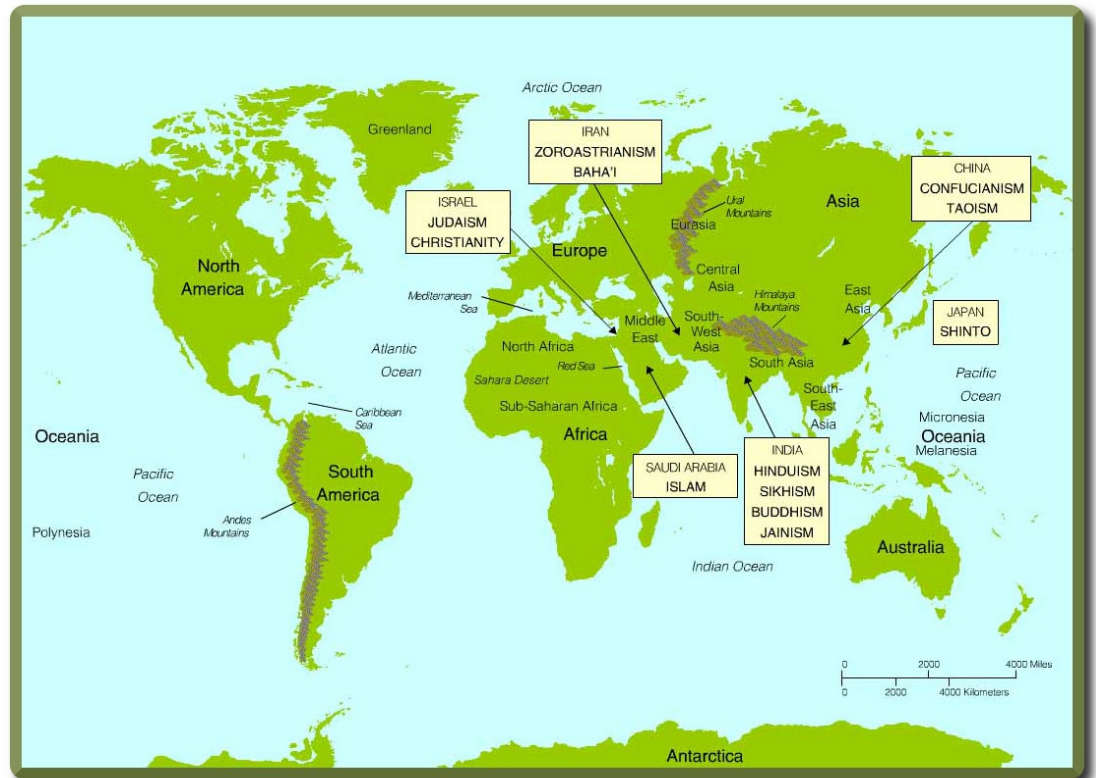
Dominant Areas of Religions in Present Day
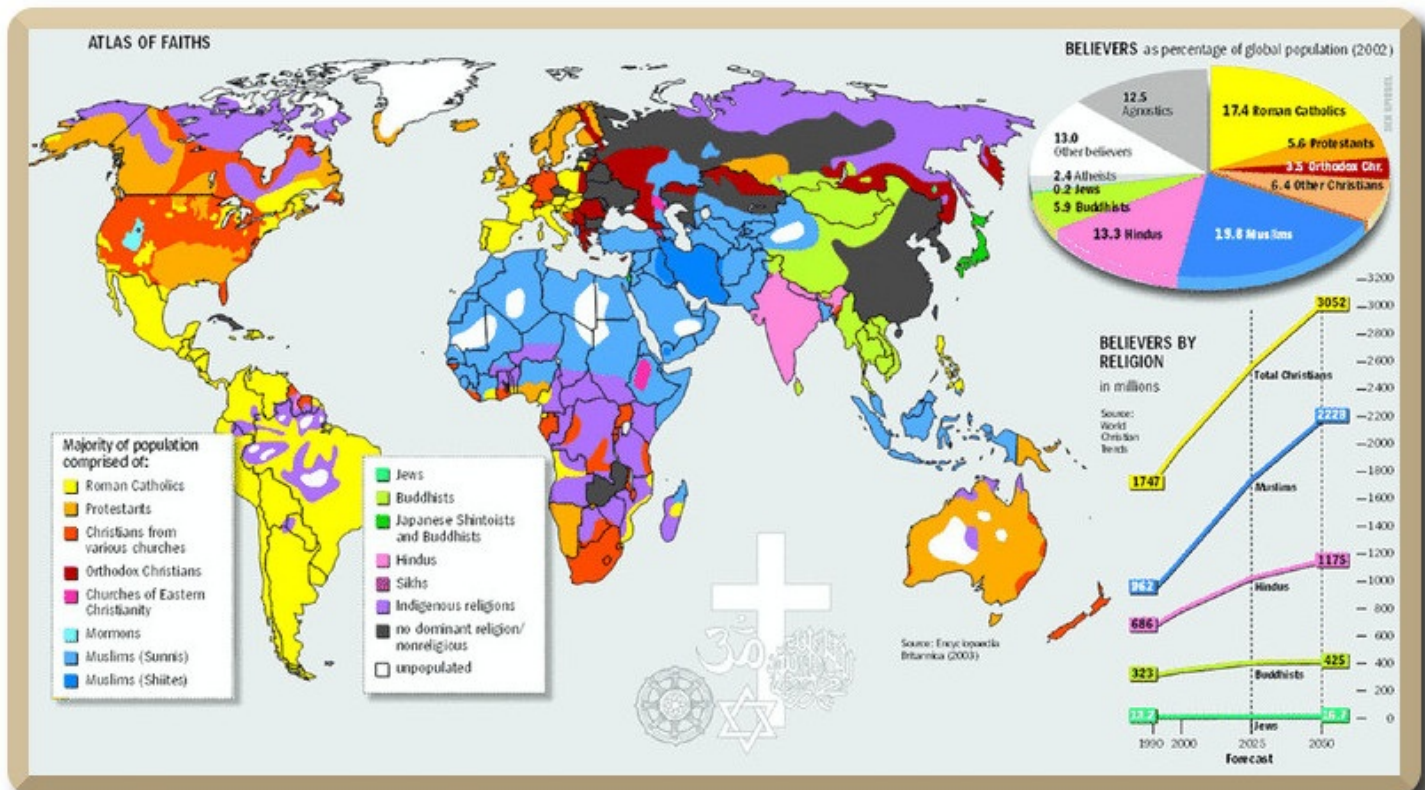
Judaism, Jewish Diaspora

Despite only have around 14.5 million followers (making it roughly 1/165th the size of Christianity and 1/124th the size of Islam), Judaism has remained significant as one of the first monotheistic religions, as the precursor to both Christianity and Islam, and due to its major conflicts throughout history with both, and especially in current Southwest Asia with Islam.

The conflict between Jews and Arabs (many of whom are now Muslims) is often traced all the way back to the book of Genesis. Abraham, the father of the Jewish religion had two sons, according to the Old Testament, the eldest Ishmael, which he had with his wife Sarah's maid Hagar, when Sarah was thought to be barren, and his second son Isaac, who he had by Sarah.

According to the text, Sarah had Abraham banish Ishmael and his mother, cutting them off from his inheritance. The Arabs trace their ancestry through Ishmael, while the Jews trace their ancestry through Isaac.

While it is hard to track the exact history of Abraham outside of the Biblical texts, many of the religious locations attributed to him are still found in Southwest Asia. The Jewish people themselves, however, did not remain in the land now called Israel throughout all of history.

They were exiled first by the Assyrians in 733 BCE, then the Babylonians in 597 BCE. Many moved with the conquest of the area by Alexander the Great in the Hellenistic period. Finally when the Roman Emperor Hadrian changed the name of Jerusalem to Aelia Capitolina, the Jewish people started a revolt in 132 CE. When the Romans suppressed that uprising after four long years of fighting, the Jews were forbidden access to Jerusalem.
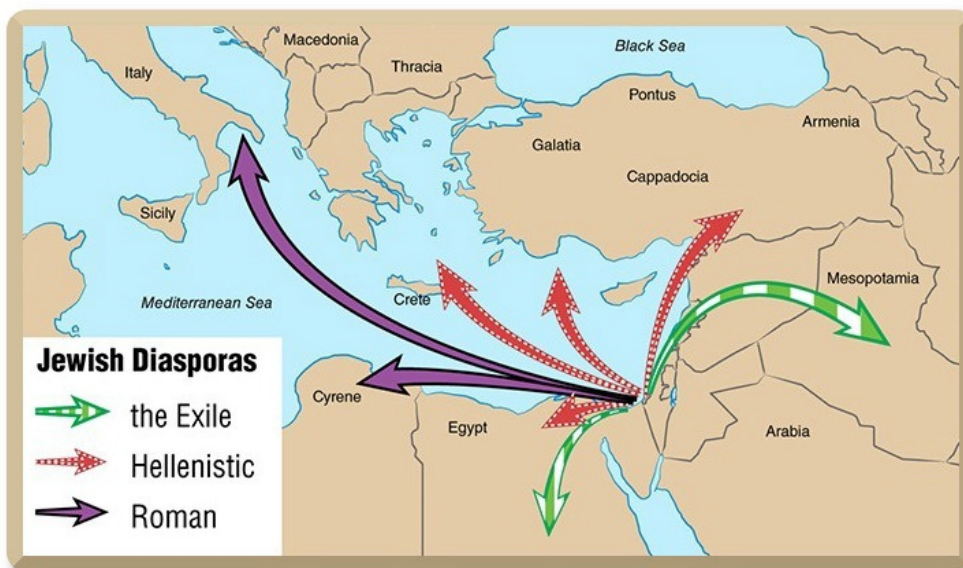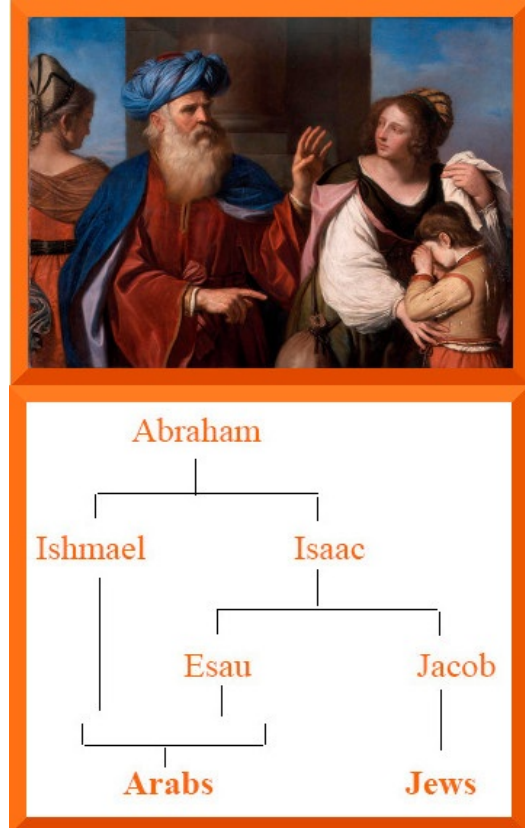
The Balfour Declaration

After World War I, the British took over the land of Palestine (which contained modern day Israel and Jordan), declared their intention to follow the Balfour Declaration, a British call in 1917 to split Palestine into an Arab and Jewish state. After World War II, they followed through on this creating the independent state of Israel.

Hinduism

One of the oldest continually practiced religions in the world, Hinduism began in India somewhere between 1900 BCE and 1400 BCE. Many outsiders consider Hinduism to be a polytheistic religion because of its many gods. However, some Hindus would argue that all those gods are really just manifestations of the same god.

An example of this would be the Trimurti or Hindu Trinity, the triple deity of supreme divinity in Hinduism, made up of Brahma the creator of the universe, Vishnu, the preserver, and Shiva the destroyer.

Despite being an ethnic religion, Hinduism is the third largest religion in the world because it is centered in India, one of the world's most populated areas. Hinduism is associated with a couple of key concepts:

1) dharma – aligning with the order that makes life possible, including duties, rights, laws, conduct, virtues and the right way of living

2) karma – the concept of action and reaction where doing good things result in good things happening to you and doing negative things results in negative things happening to you, over this life or multiple lives

3) the caste system – A four-level system that separated people into levels of society at birth. The four levels are said to be aligned with different parts of Brahma's body. There is actually a fifth group of people that are below the caste system that are often referred to as untouchables.

The Creator · The Preserver · The Destroyer

BRAHMA · VISHNU · SHIVA

The Caste System

Brahmins
priests & teachers

Kshatriyas
warriors & rulers

Vaishyas
farmers, traders & merchants

Shudras
labourers

Dalits (outcastes)
Street sweepers, latrine cleaners

BRAHMA

The Ganges River

Like many ethnic religions, many of the Hindu traditions are centered around the natural world. Perhaps, the best example of this is the Ganges River, which runs across Northern India in the East and into Bangladesh. It is the most sacred river of the Hindu religion. Ironically, though it is considered by Hindus to be spiritually pure, it is one of the world's most polluted rivers.

Religious Branches, Denominations and Sects

Key Terms:

~Religious Branch – a large fundamental division of a religion
~Religious Denomination – a division of a branch of a religion that unites a number of local congregations in a single legal and administrative body
~Religious Sect – a relatively small group that has broken away from an established religion

      To demonstrate, let's use Christianity as an example. In our scenario, Christianity is an oak tree, as opposed to say Islam which is a cedar tree. That giant oak tree has just three branches: Catholic, Eastern Orthodox and Protestant. These are the large fundamental divisions of the oak.

      Now, those branches have limbs (which represent denominations) splitting off of them. Because Protestant Christianity holds closer to the concept of each individual Christian interpreting the Bible for themself, it quite naturally has more of these limbs (denominations), but they all have some.

      Finally there are sects. Sects take the basic core of a religion, but then split of an do their on thing. The Church of Jesus Christ of Latter Day Saints (Mormon Church) is a good example of this. The Mormons use the Old Testament and the New Testament, but unlike any other Christian church, they also use of the book of Mormon.

      This makes them fundamentally different, yet the same. In our analogy, picture an acorn rolling away from the oak tree and sprouting a new oak tree. It's not in the same tree as the branches and denominations, but it is not so different that it has become a cedar or maple tree.
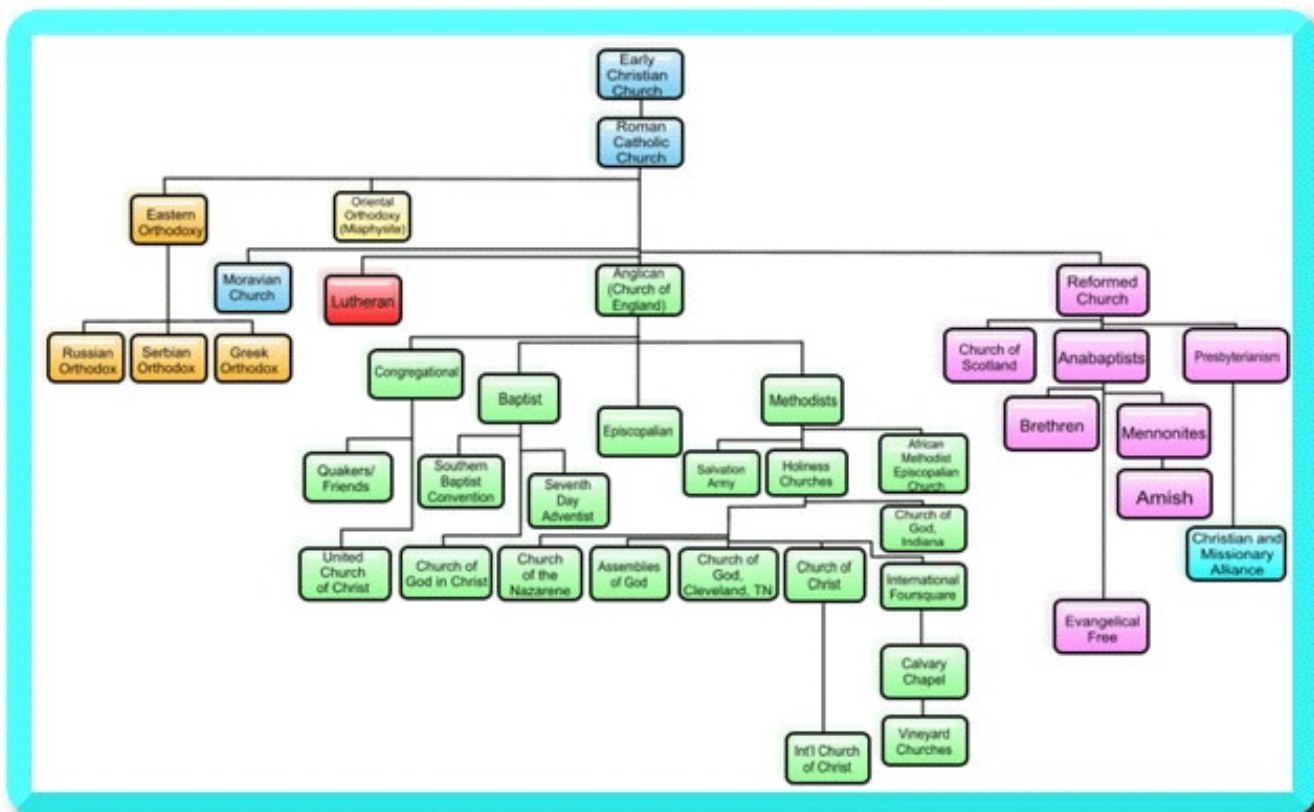
Where Christian Churches are in United States

Leading Church Bodies, 2000

Source: Religious Congregations and Membership in the United States, 2000. © 2002 ASARB. Available: [CD-ROM]. Nashville, TN: Glenmary Research Center.

*Other:
1. Adventist
2. Anglican
3. Brethren
4. Friends
5. Orthodox
6. Pentecostal
7. Presbyterian
8. United Church of Christ
9. None

County designations are based on the total number of adherents reported by each church body divided by the county population in 2000.

♦ Majority counties are areas in which the leading church body claims 50 percent or more of the population.

Baptist	Catholic	Christian	Latter-Day Saints	Lutheran	Mennonite	Methodist	Reformed	Other*
1,302	1,164	72	80	250	10	219	9	35

Number of Counties

The map above is county by county, and by that standard, there are many counties that have more Catholics than anything else. Still, the chart to the right shows us that there are still twice as many Protestants as Catholics in the United States.

This stands in contrast to the world where 70 percent of all Christians are Catholic. An overwhelming number of Christians are Catholic in Mexico and Central and South America for example, which were settled by Spain, in large part, which is a Catholic country.

US Percentage of Major Religions: Ranked in Descending Order Clockwise

- Protestants 51%
- Rom. Catholics 24%
- Unaffiliated 12%
- None 4%
- Unspecified 3%
- Mormon 2%
- Jewish 2%
- Other Christian 2%
- Buddhists 0.7%
- Muslim 0.6%

The map shows us that while Catholics show up everywhere, they are in greatest number in the Southwest, Northeast and parts of Florida, where there are more Hispanic immigrants. Southern Baptists dominate the landscape in the Southeast, Mormons (Latter Day Saints) near Utah, where they settled to avoid persecution in Illinois, Methodists in Ohio and West Virginia, and Lutherans in part of the Midwest and Dakotas, as those regions more resemble the climate of Germany, where Lutheranism began.
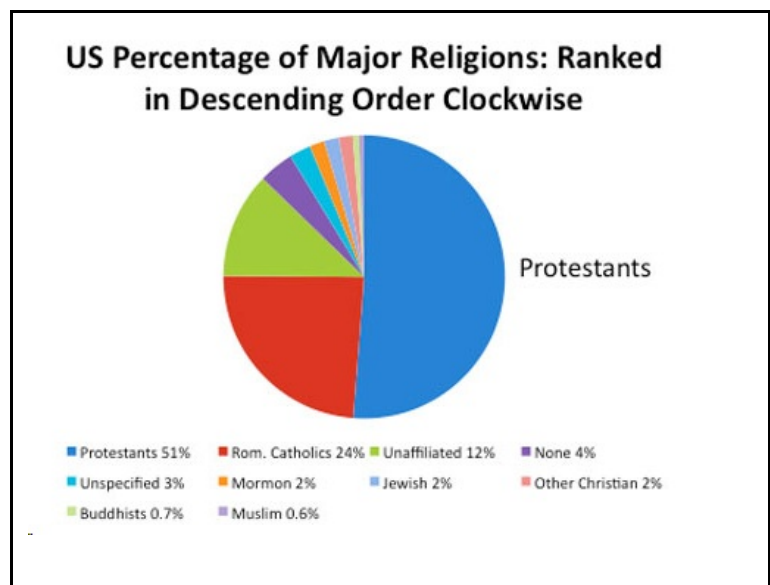
Islam

Islam has many similarities with Christianity. It developed out of principles of Judaism, is a large universalizing religion, is monotheistic, has the same deity as Christianity (Allah is Arabic for Yahweh), and has large fundamental branches.

The two main branches of Islam are Sunni (which believes that the first four caliphs after Mohammed are all important) and Shi'a (which believes that the fourth caliph, Ali, is Mohammed's true successor). Since, Shi'a is more limiting, it is also the smaller of the two branches.

Islam uses the Holy book of the Qu'ran, which are the teachings of Mohammed in his lifetime, written down after his death. is known for being the religion that spread the quickest, going from nonexistence to dominating the Mediterranean Sea in less than 150 years.

Estimated distribution of Sunni Muslims in the Middle East

THE SPREAD OF ISLAM, 622 – 750 CE

Islamic world under Muhammad, 622–632
Territory added by first four Caliphs, 632–661
Territory added by Umayyad Caliphs, 661–750
Non-Islamic kingdoms
Military campaigns

Buddhism

The Four Noble Truths

1) There is suffering in the world.

2) Desire causes suffering.

3) If you eliminate desire, you eliminate suffering.

4) The key to eliminating desire is following the Eight Fold Path.

Buddhism is an offshoot of Hinduism developed in the fifth century BCE when a prince named Siddhartha Gautama discovered the Four Noble Truths and took on the title of Buddha or "Enlightened One".

While Buddhism started in India, it found far more long-term success elsewhere, especially in Sri Lanka and China. Much like Christianity, Buddhism is not the dominant religion in it's hearth.

Branches

The two main branches of Buddhism are Theravada Buddhism, which puts its roots in the historical Buddha and believes enlightenment is arduous and only available to diligent monks, and Mahayana Buddhism, which focuses on transcendent Buddha and enlightenment for all.

Buddhist Landscapes

Borobudur in Indonesia

Boudhanath in Nepal

Shwedagon Pagoda in Burma

Todai Ji in Japan

Religious Pilgrimage

~ Pilgrimage – a journey or search of moral or spiritual significance

Many religions have pilgrimages to sacred places, but no pilgrimage is more famous than the Hajj. The Hajj is the fifth pillar of Islam, a call for all Muslims that are financially able to make a pilgrimage to the Qa'aba (the most Holy mosque in Islam that all Muslims pray toward five times a day. The Qa'aba is located in Mecca, birthplace of Mohammed.

During the Hajj, which happens annually, more than 2 million Muslims swarm Mecca (it is illegal for non-Muslims to go to Mecca in Saudi Arabia).

Pilgrimages are not unique to Muslims, of course. There is a strong history of Christian pilgrimages, most significantly to Jerusalem in the Medieval Era. In fact, it is the cut off of these pilgrimages to Jerusalem by the Seljuk Turks that largely led to the Christian Crusades from the 11th to 15th century.

~ Relic – a part of a deceased holy person's body or belongings kept as an object of reverence

While pilgrimages are made to locations of historical significance like the Qa'aba and Jerusalem, that are also undertaken to visit Holy relics. For example, Notre Dame Cathedral in Paris houses what is said to be a piece of the cross that Jesus was crucified on amongst other relics. Likely the most famous Christian relic is the Shroud of Turin, which is in the Italian city of Turino, and is supposed to be the shroud that was laid over Jesus's dead body and still hold his likeness, though carbon dating calls this into question.

Buddhists put their Holy relics in pagodas, not to be confused with temples where they worship. Buddhists also have eight holy pilgrimage sites in India based on major events in the Buddha's life.
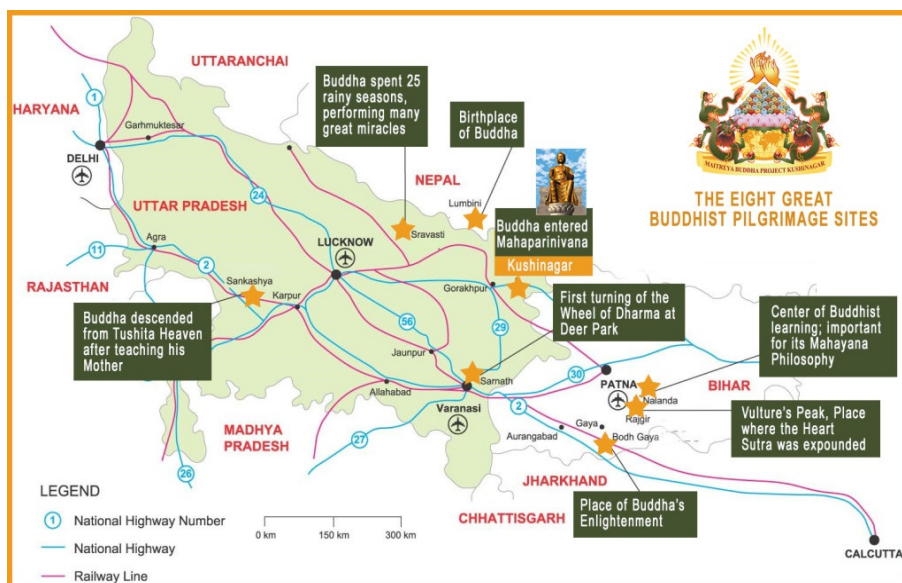
~ Sikhism – The most recent of the major world religions, it was founded in India in the 15th century by Guru Nanak in the Punjab region of India. It is a monotheistic religion (though the one god takes many forms) and has close to 30 million practitioners (twice that of Judaism).

Secularization and Fundamentalism

Key terms:
> ~ Secularism: the indifference to or rejection of organized religion and its ideas
> ~ Fundamentalism: the demand to return to the basic doctrines of a religion

History of World Religions by Year
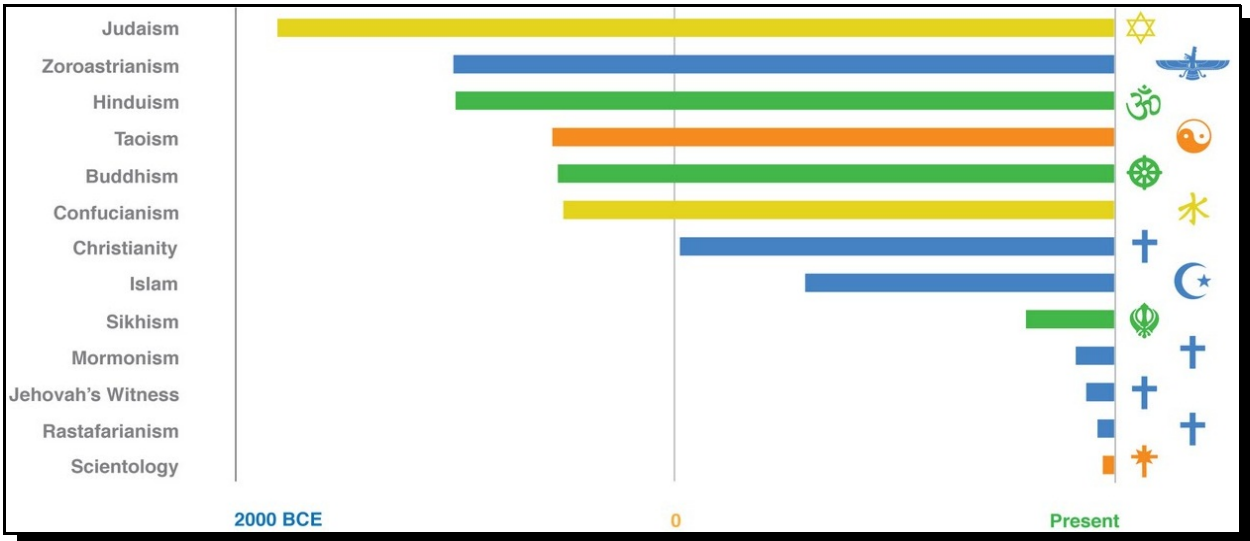
All of the world's largest religions (except Sikhism) have existed for more than 1000 years if not 2000 years, so in that time they have developed some major separations like Shi'a and Sunni Islam or Theravada or Mahayana Buddhism.

This long history with many of these religions can also lead to two opposite trends in the modern religions. First, there is the call to get back to the original basics of a given religion (fundamentalism). On the flip side, there is the call to abandon religion altogether (secularism).

	Secularism	Fundamentalism
Causes	~ Antireligious government ideologies like those in Castro led Cuba and Maoist China discourage and sometimes outlaw religion ~ Disagreement or disillusionment with the church in general	~ Frustration over perceived breakdown of morals and values in society ~ Lack of religious authority ~ Sense of violation of a religion's core territory ~ Failure to achieve economic goals
Other Things of Note	~ Secularism is more widespread in the last century than ever before ~ Even members of religious groups are participating less in religious activities ~ France has banned the wearing of overt religious symbols in schools	~ Often becomes associated with extremism to enforce their goals (think the Taliban or the Ku Klux Klan) ~ Zealots are limited to any one religion or religious group, as the Taliban is a notable Muslim group, but the Ku Klux Klan was Christian

Ethnic Conflicts

In general, ethnic conflicts stem from a number of common causes such as the demand from ethnic/cultural autonomy (self-rule); competing demands between ethnicities for land, money and power; and long-standing rivalries between ethnic groups.

Other factors that set places up to have conflict:
    ~ Structural factors (weak state, interior security concerns, ethnic geography)
    ~ Political factors (elite politics, discriminatory institutions, exclusive national ideologies)
    ~ Economic/social factors (economic problems, discriminatory systems, modernization)
    ~ Cultural/perceptual factors (patterns of discrimination, problematic group histories)

Good examples of world ethnic conflicts

ISRAEL VS. PALESTINE	HUTUS VS. TUTSI (RWANDA)
~ Israel (Jews) vs. Palestine (Muslims) ~ Conflict centered around Gaza Strip ~ Some Palestines led by Hamas	~ Hutus are majority, Tutsi minority ~ Massive genocide of Tutsi by Hutu in 1994 ~ Failure to act by international community
ETHIOPIA VS. ERITREA	MUSLIMS VS. CHRISTIANS (INDONESIA)
~ Eritrea used to be part of Ethiopia ~ Without Eritrea, Ethiopia is now landlocked ~ Ethiopia still wants access to the Red Sea	~ When groups argue for self-rule, it often spirals into self-determination conflicts ~ Much of the fighting over political power
KOSOVO VS. FORMER YUGOSLAVIA	ARMENIA VS. AZERBAJAN
~ Kosovo's ethnic Albanians not like other former Yugoslav groups (also mostly Muslim) ~ Ethnic cleansing targeted at them	~ Nagorno-Karbakh is Armenian enclave in the borders of Azerbajan that voted to leave ~ The lead to conflict in mountainous region
SERBS VS. CROATS (BOSNIA)	SOUTH AFRICA
~ Bosnia Muslims caught in the middle ~ NATO intervened when UN wouldn't ~ Croats fought for Independence (1991-95)	~ Apartheid separated people by class ~ White minority had the power, and the native African majority had little to no power
CATHOLICS VS. PROTESTANTS (N. IRELAND)	CHECHNYA VS, RUSSIA
~ Irish Catholics vs. British Protestants ~ The Irish in Northern Ireland are mostly Protestant and don't want to leave U.K.	~ When Soviet Union split up, the Russians refused to let small Chechnya go ~ Russia still holding on to oil-rich area
TAMILS VS. SRI LANKANS	QUEBEC, CANADA
~ Tamils are the ethnic minority in Sri Lanka ~ Tamil Tigers often listed as terrorist group ~ Led to Sri Lankan Civil War (1983-2009)	~ Union of British and French heritage ~ French Quebec has talked of secession ~ Very little overt violence
ISLANDS OF THE PHILIPPINES (MINDANAO)	LEBANON
~ South island of Mindanao is Muslim ~ Christians in majority post colonization ~ Mindinao did not feel included	~ Maronite Christians used to have majority ~ Creation of Israel and influx of Muslim refugees changed that and led to conflict

Neolocalism; Toponyms

There are few things more associated with an areas Sense of Place more than language and religion. Having people that speak the same language as you or practice the same religion brings a feeling of belonging and safety to most people. Cultural landscapes are dotted with things like street signs and religious buildings that are inherent to a people's culture.

As the world becomes more interconnected, some of those regional differences start to melt away, which can lead to uncertainty. In addition, many people migrate far away from their original cultural heritage. This leads us to another concept – neolocalism. Neolocalism is the seeking out of regional culture in response to uncertainty of the modern world.

Ethnic neighborhoods like Chinatown and Little Italy in New York are good examples of neolocalism. The annual St. Patrick's Day parade in Boston, where many people have Irish ancestry, is a smaller example.

Toponyms

As places evolve, their cultural dynamic often changesWhat things are named, their toponym (literally place name), can often give an indication of a history and the culture of an area.

Let's take the most popular three of the most populous cities in California for example – Los Angeles, San Diego, and San Francisco. What do these three names have in common?

1) They are all Spanish names, which gives some indication of the culture that helped settle the area (obviously, there were people groups there before Spanish speakers)

2) Two they are all religious names, in this case Catholic (they translate to The Angels, St, James and St. Francis)

This gives strong indication that Hispanic Catholics were instrumental in helping to develop California. Los Angeles is a commendatory toponym (named to praise a town), while San Diego and San Francisco are commemorative toponyms (named in honor of a famous person).

Other major types of toponyms include descriptive, associative, incident, mistaken, possessive, manufactured, and shift toponyms. In human geography, knowing the types of toponyms is not as important as understanding what they can say about a place.

16 Things to Understand About Unit 4 Gold

1) States, Nations, Nation-States, Stateless Nations, Multistate Nations, Multinational States

2) Sovereignty of independent states building block of political maps

3) Autonomous and Semi Autonomous regions (Indian Reservations)

4) Territoriality; Organic Theory

5) Self-Determination

6) Reasons for Boundaries and Categories of Boundaries (defined, delimited, demarcated, administered)

7) Types of Boundaries (relic, antecedent, subsequent, geometric, superimposed, consequent)

8) Reasons to Contest Boundaries

9) Differences between Unitary and Federal States

10) Unitary and Federal States of the world

11) U.S. Census, Voting Districts, Redistricting

12) Gerrymandering

13) U.N. Convention on the Law of the Seas

14) Centripetal and centrifugal forces

15) Centripetal forces result in ethnonationalism, equitable infrastructure and increased cultural cohesion

16) Centrifugal forces result in failed states, uneven development, stateless nations and ethnic nationalist movements

Nation, State, Nation-State, Stateless Nation

Because its so confusing for students growing up in the U. S., let's start with the term state.
~ State means what we call country. Really it does. One of the few places that refers to its smaller subdivisions as states is the United States of America. This is because after winning the American Revolution, the 13 colonies were operating as individual countries (states) and then united together for common interest. So 13 states became one state, and in the process confused a bunch of 21st century geography students.

So just know that state means country, and to be a state, you have to follow some rules.
1) Have a permanent population
2) Have a defined territory
3) Have a government
4) Be recognized by other states

Currently there are either 195 or 196 states in the world depending on if you believe China's assertion that Taiwan is a province of China, or Taiwan's claim that they are an independent country.

Which bring us to nation, which is a unified group of people that have a shared past and a common future.
~The people of a nation share common cultural characteristics like religions, languages and ethnicities, and they relate to a territory.
~ The people of nations tend to be loyal to their nation.
~ Some examples include: Flemish, Walloons, Irish and Danish

In general, nations, especially in Europe, like to have control of a state all their own. When a state is composed almost entirely of one nation then it becomes what is called a nation-state. Some examples of nation-states:
~ Japan (99.5 Japanese)
~ Iceland
~ Denmark
~ France

Sometimes a nation is not able to have a state of its own anywhere, instead being spread out over several states. This is called a stateless nation.

Good examples of this are Palestine and the Kurds. The Kurds are spread out over multiple countries, with large populations in Turkey, Iran, and Iraq.

Bonds That Create a Nation-State

Culture
a shared way of life (food, dress, behavior, ideals)

History
a common past; common experiences

Religion
a religion shared by all or most of the people

NATION-STATE

Language
different dialects of one language; one dialect becomes "national language"

Nationality
belief in common ethnic ancestry that may or may not be true

Territory
a certain territory that belongs to the ethnic group; its "land"

Sovereignty, Autonomous Regions, Territoriality

Key Terms:

> ~ Sovereignty – the supreme authority of a state over its own affairs, free from control by other states
>
> ~ Autonomous Region – A subdivision or dependent territory of a state that has a degree of self-governance
>
> ~ Territoriality – the attempt by and individual or group to affect, influence, or control people, phenomena, and relationships, by delimiting and asserting control over a geographic area

Sovereignty is the basic concept that the world map is built on, and highly related to one of the four requirements for being a state (being recognized by other states as having sovereignty).

Let's return to the Taiwan question. If Taiwan has sovereignty, then no other power can tell it what to do. If China controls what Taiwan is allowed to do, then it doesn't have sovereignty.

The map of East Asia to the right has Taiwan in the same color as mainland China, indicating that China is in control of Taiwan. In this scenario, Taiwan is more of an autonomous region. China allows Taiwan to govern it's own affairs, provided that Taiwan does not claim sovereignty. China has indicated on occasion that it would use force to squelch such a claim.

The United States also has some autonomous regions. Many Indian reservations have autonomous control, as well as Puerto Rico historically having autonomy over its affairs.

Historically, people have tended to mark territory, in order to show control. Of course, who is in control of which area often changes over time. One geopolitical theory created by Friedrich Ratzel, the organic theory, says that states, like organisms, have to keep growing or they will die (be wiped out).

At the outset of World War II, many powers, and especially the Nazis, twisted his theories to suggest that in order for a nation to be healthy, it had to feed itself by taking over other nations and expanding its territory.

Creative applications of Organic theory can lead to attempts at world domination

Boundaries

~ Self Determination: Concept that nations or ethnicities have the right to govern themselves.

Boundaries can come into existence for a number of reasons:

1) cultural divisions

People are divided by differences in culture all the time, especially language and religion. There is a strong reason why Brazil, which was settled by the Portuguese, is a different state than Argentina or Chile. Similarly, North Ireland split from the rest of Ireland and remained in the United Kingdom because of a culture difference in religion.
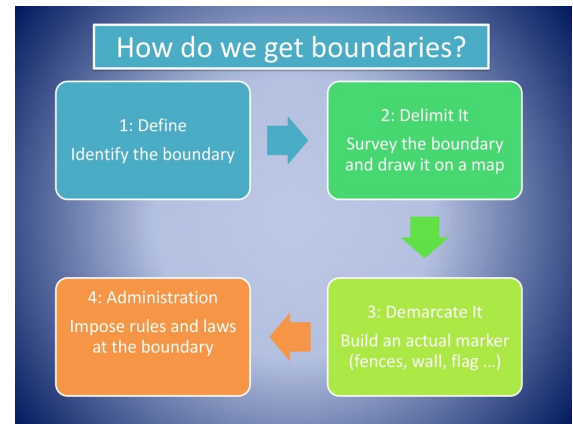
2) national divisions

Many borders are put in because of a difference between two nations. The breakup of Yugoslavia in the late 20th century saw nations such as the Serbs and Croats split into separate states

3) economic divisions

There are serious economic divisions between independent states, but often regions inside are state see just as much disparity. Catalonia, one of the wealthiest areas in Spain, is pushing hard for independence because the Catalans feel Spain takes much more in revenue from the region than it gives back.
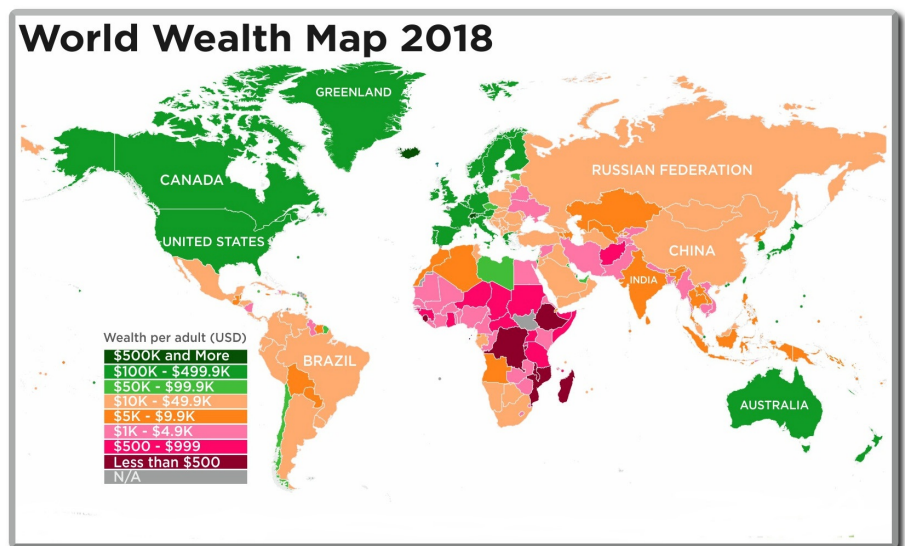
4) demilitarized zones

Areas between two nations where military installations, activities, or personnel are forbidden. The most famous DMZ is between North and South Korea.

5) policy/treaty decisions

Sometimes, borders are decided by foreign powers not in the area, which is how Yugoslavia got put together in the first place. The most notably instance of this is the Berlin Conference in 1884-85.

Types of Boundaries and Boundary Disputes

The most basic type of boundary is a physical boundary. This is when the boundary follows a river or a mountain range or even a desert.

If people don't follow physical boundaries, they often draw their boundaries in straight lines, particularly along lines of longitude and latitude. These are called geometric boundaries.

Sometimes, there are cultural boundaries based on cultural traits such as language, religion, or ethnicity. These are often referred to consequent boundaries.

Then there is a group of terms based on when and how the boundary came to be:

Antecedent	Subsequent	Superimposed	Relic
Pre-existing; commonly corresponds to a physical feature. Rivers, Bays, Lakes, Mountains.	Set after the settlements of different groups meet. Often correspond to their respective ecumene.	Boundary is imposed by an outside force (treaty). May not reflect existing cultural landscape.	No longer a boundary. Often the outcome of political changes. Still a visible imprint on the landscape.

Fortified boundary: When two sides of a boundary create a man-made physical boundary

Types of Boundary Disputes

Definitional	Locational	Operational	Allocational
This is a dispute over the legal language of a boundary agreement.	This is a dispute over where lines are drawn on the map (delimitation) and sometimes over the physical marking of the boundary	This is a dispute over the way the neighbors think the boundary should function and operate.	This is a dispute over resources in the boundary zone and which country they belong to, etc.
Example: Chile and Argentina are still disputing the wording of an 1881 treaty.	Example: Mississippi and Louisiana along the Mississippi River which changes course.	Example: The United States and Mexico on immigration legal and illegal.	Example: Kuwait and Iraq (oil); Germany and the Netherlands (natural gas)

Unitary State, Federal State and Confederation

The world is divided, mostly, between unitary and federal states, though in actually, federal is the compromise between unitary states and confederations. In a unitary state, the central government has the power. In a confederation, the local government does. It is shared in a federal state.

**There are no current confederations, they tend to break apart because of weak central power.

Type	Unitary	Federal	Confederation
Power	Held by Central Govt.	Shared by Central & Local	Held by Local Govt.
Advantages	~ Laws the same throughout country ~ Greater stability ~ Fewer conflicts between central and local authorities	~ Local officials have to be responsible to electorate ~ Central govt. can concentrate on national issues ~ People have local influence	~ Complete control at local levels ~ Allows states to address common concerns without ceding power to each other
Disadvantages	~ Central government out of touch with local concerns ~ Slow to correct local issues ~ When central govt. gets involved in one set of local affairs, it neglects others	~ Duplication of services ~ Disputes over national supremacy vs. states' rights ~ Citizens in different areas of country treated differently ~ Laws may contradict	~ Very hard to enforce decisions of the central government or collect taxes ~ Lack of unity and common laws
Examples	North Korea, China, Japan France, Iran, Saudi Arabia	United States, Australia, Brazil, India, Russia	Not really any, though Belgium is close

Here is a look at where the unitary and federal states in the world are:

Unitary & Federal States in the World

■ Unitary States   ■ Federal States   ■ Special case: Somalia
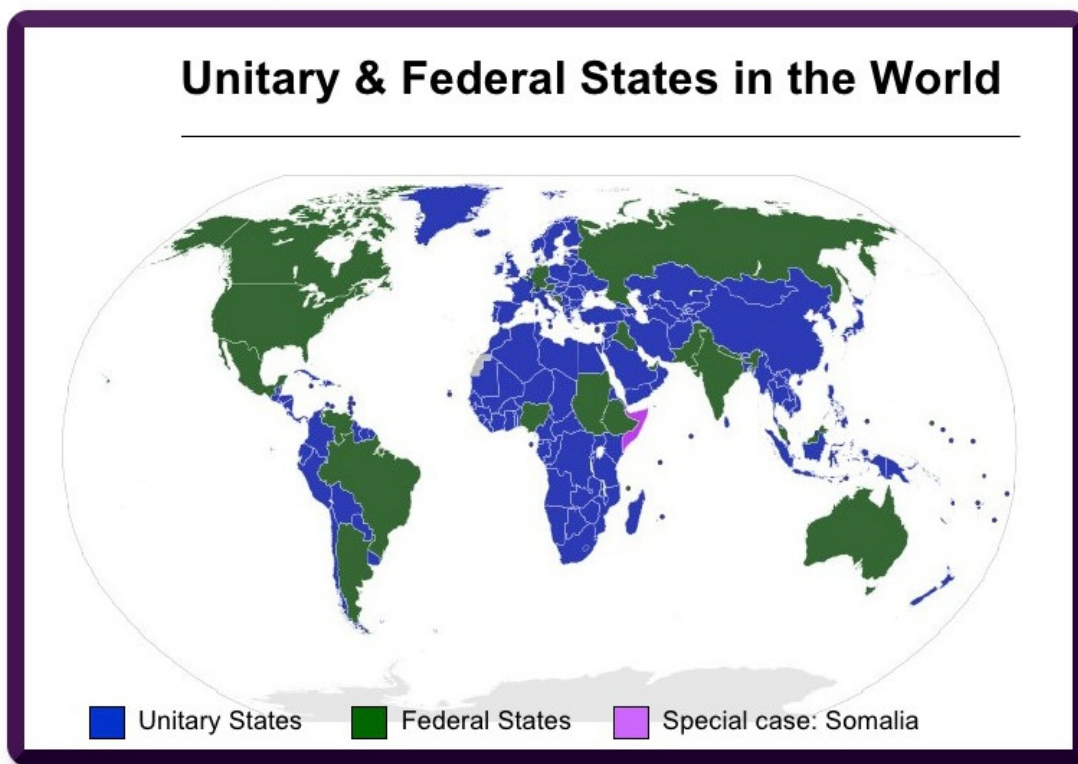
U.S. Census and Redistricting

The legislative branch of the United States government has two houses.

     1) The Senate made up of two Senators from each state
     2) The House of Representatives in which representation is based on population

     Since 1913, the number of Representatives in the house has been set at 435. However, since the population of each state varies, how many Representatives each state changes as population changes. The measurement of population change is conducted every 10 years by the U.S. Census. The Census does more than count population, but that is the key element in representation.

Here's a look at what changed in 2010:
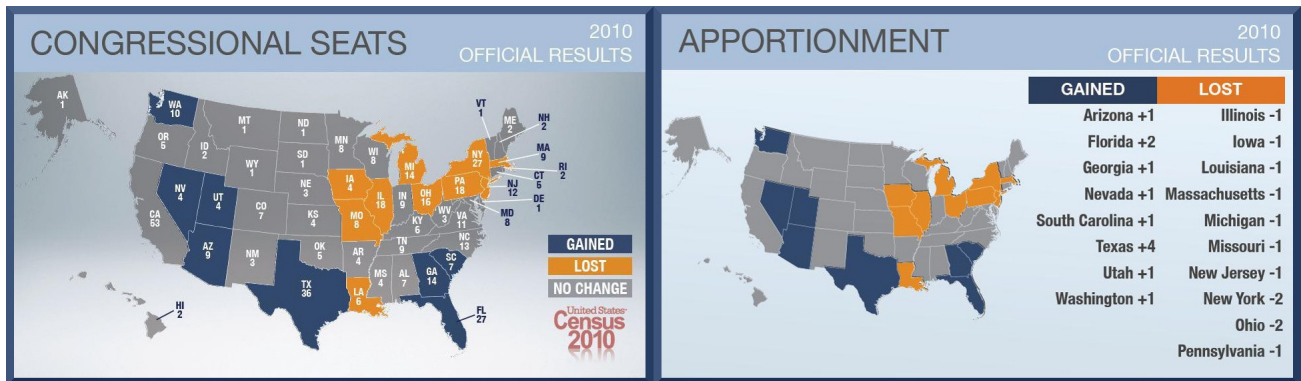
     However, the federal government does not divide up the Congressional districts inside the states. Because of the split of power between the federal and state governments, each state divides their own Congressional districts, which can lead to the political party in power in that state trying to give itself an advantage. Here is a look at the current districts nationally:
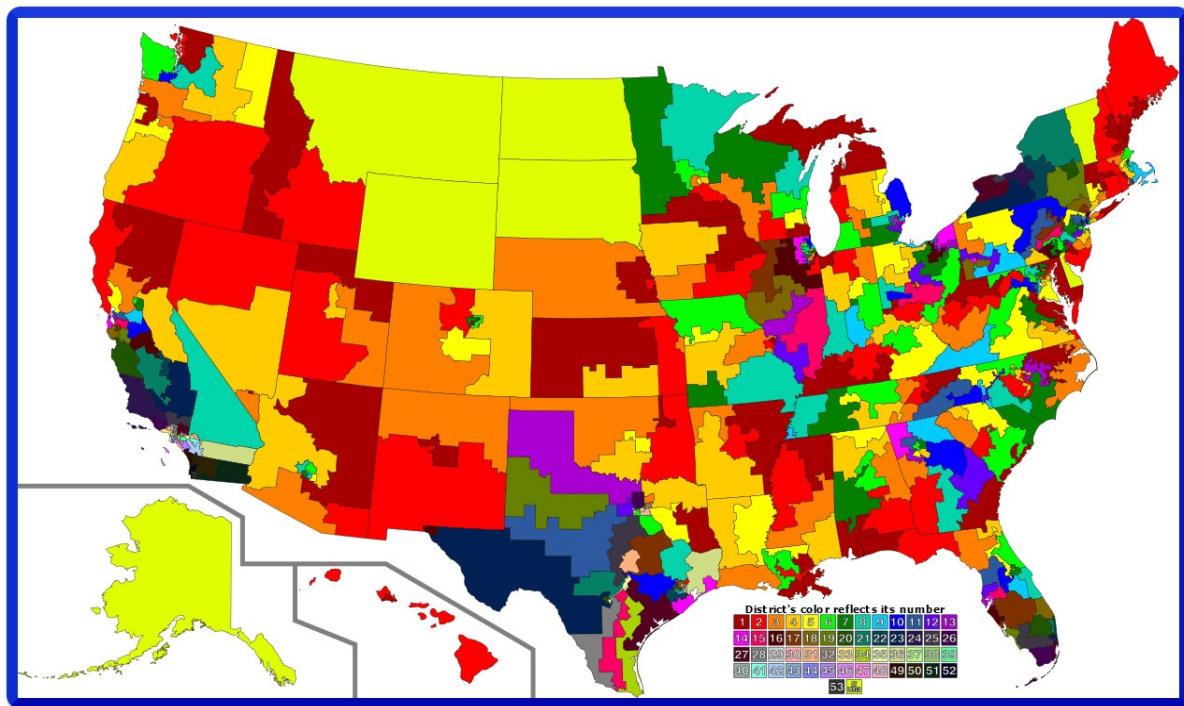
Gerrymandering

Gerrymandering is a pretty odd term, but it is a pretty simple concept. Basically, is has to do with re-drawing political districts to favor one political party.

The term derives from a Massachusetts governor named Elbridge Gerry who drew districts so odd looking that opponents said they looked like a salamander. They even drew a cartoon to demonstrate (on right).

The concept is against the law most places in the United States, yet it still happens.

There are two main styles of gerrymandering: packing and cracking.

Packing is when you group as many votes of the opposing party as you can into just one district, so that the opposing party gets the one seat easily, but your party wins the rest.

Fig. 6.4. Elkanah Tisdale's original Gerrymander, as it appeared in the Boston *Gazette*, March 26, 1812. (From James Parton, *Caricature and Other Comic Art* [New York: Harper and Brothers, 1877], p. 316.)

Cracking, is when you scatter as the opposing party into as many different districts as possible in hopes that your party can take the majority in most if not all districts.

In order to do any of this, your party has to be in power when the legislative seats are redistricted, a process called reapportionment.

The example on the left shows an incident of packing and of cracking. You have twelve green dots and eight purple dots. On the left side of the image, they are split with three green dots and two purple dots in each district. So despite only having 60 percent of the people supporting them, the green dot party gets 100 percent of the representation.

On the right you see packing. By making a district that is all purple dots, the green dot party guarantees itself of winning the other districts easy. They still have 60 percent of the people, but they take 75 percent of the vote.

For a modern example of gerrymandering, notice how District 3 in Florida wove through several counties to pack Democrat voters in one area in 2012. It connected the largely African American neighborhoods on the east of Gainesville and the west of Jacksonville. A Florida judge ruled these Florida districts to be illegal, and they have changed since then.

Territorial Waters and Claims to Antarctica

The Law of the Sea

Countries don't only want to control their land, they also want to control the waters around them (assuming they are not landlocked). Thanks to a United Nations Convention in 1982, there is a defined level of control based on how far from the coast they are:

Level 1: Territorial Waters

The first 12 nautical miles from the coast are referred to as territorial waters. These are completely controlled by the country, and are basically an extension of the land. Foreign ships need permission to enter these waters.

Level 2: Exclusive Economic Zone (EEZ)

The is the area within 200 nautical miles of from the coast. All the resources in this territory belong to the country, but foreign ships can pass through without permission. If two states have overlapping EEZ, then the distance from is each is split in half equally from each state.

Level 3: The High Seas or International Waters

Once you get more than 200 nautical miles from any country, you get to International Waters. No country can impose its laws over others, and the only laws present are those created by the United Nations.

Antarctica
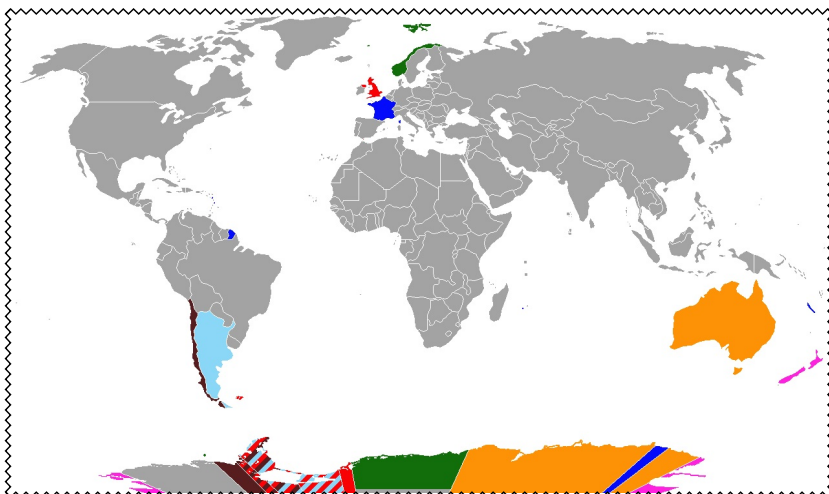
Antarctica is pretty unique because it is one of the few land masses on earth that isn't a state. It fails in at least three of the qualifications for being a state. (pg. 33) It doesn't have a permanent population, a government or sovereignty.

The map on the left shows all the different countries that lay claim to part of Antarctica and which sections they lay claim to.

Centripetal Forces vs. Centrifugal Forces

Centrifugal Forces Divide a State
Ethnic Conflict
Social Injustice
Poverty
Dictatorial Leadership
Religious Intolerance
Nationalism
Loss of Rights
Any Other Divisive Force

Results of Centrifugal Forces

1) uneven development

2) ethnic nationalist movements

3) failed states & stateless nations

Centripetal Forces

Centripetal Forces Hold a State Together
Ethnic Unity and Tolerance
Social/Economic Equity
Just and Fair Legal System
Charismatic Leadership
Religious Acceptance
Nationalism
Common Heritage
Common Language
Any Other Unifying Force

Results of Centripetal Forces

1) equitable infrastructure

2) ethnonationalism

3) cultural cohesion

Key terms:

~ Balkanization: The process of a state fragmenting and dividing into several states

~ Infrastructure – the underlying framework of services and amenities needed to facilitate productive activity

~ Uneven development: Unequal distribution of people, resources and wealth in a state

~ Ethnonationalism: When a nation is defined by it's ethnicity

~ Failed state: a state whose political or economic system has become so weak that the government is no longer in control

Uneven Development

16 Things to Understand About Unit 4 Purple

1) Independence movements of Colonies and Empires

2) Neocolonialism

3) Irredentism

4) Cold War (NATO vs. Soviet Bloc); shatterbelt regions, choke points

5) Devolution

6) Physical Geography, Social and Economic Disparity, and Ethnic Separation can cause Devolution

7) Other causes of Devolution include Ethnic Cleansing (Rwanda, Yugoslavia) and Terrorism (IRA, ETA, ISIS)

8) Collapse of Soviet Union; Balkanization of Yugoslavia

9) Devolution causes fragmentation into autonomous regions and substantial political territorial units (as in Spain, Belgium, Canada and Nigeria)

10) Devolution causes some states to disintegrate (as in Eritrea, East Timor and South Sudan)

11) Supranationalism

12) The United Nations (including Security Council) and The European Union (including Brexit)

13) Causes of Supranationalism (Transnational and environmental challenges, economies of scale, trade agreements, military alliances)

14) NAFTA and USMCA; OPEC

15) ASEAN, Arctic Council and African Union

16) How technology facilitates Supranationalism, Devolution and Democritization

Independence Movements of Colonial Empires

~ Decolonization: process by which colonies become independent of the colonizing country

Over the last 200 years, colonies have been gaining their independence, especially those colonies of European countries. At one point, the whole of South America belonged to various European countries, but independence movements led by Simon Bolivar and others, beginning in the early 1800s, freed much of those countries from colonial rule. Now, the lone hold out is French Guiana.

Those freedom movements came before the Scramble for Africa even started, which now has mostly seen independence movements itself, so there is something of a cycle in place. As we saw in Africa, however, decolonization is more complex than it sounds. Sure, most of the countries in Africa are not directly controlled by foreign powers, but they also look nothing like the did before the colonial period.
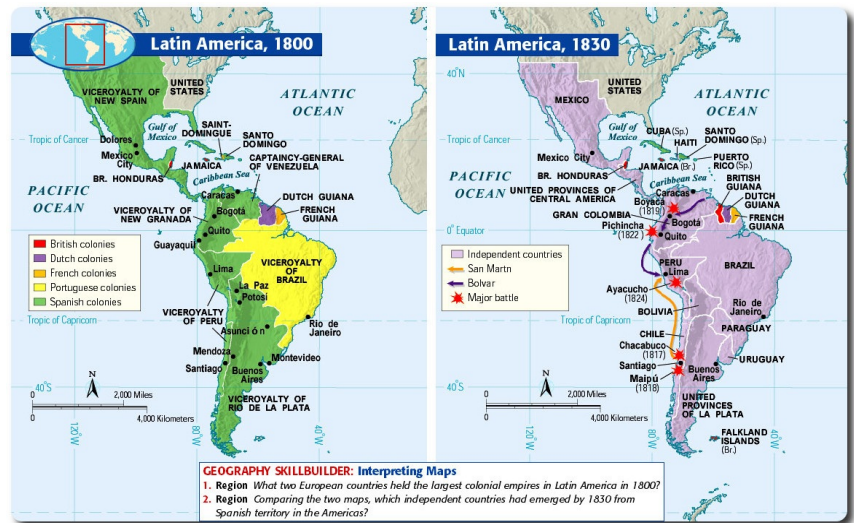
Colonization is going to put cultural groups in contact with each other, and thus, both cultures are going to change from that process. Many decolonization movements, claim that it is not enough to simply remove the colonial power's control, they aim to remove the cultural impact as well, which is much easier said than done. The decolonization propaganda poster on the left likens independence movements that don't stress separation of culture to anarchy.

Those movements may have a point. There are many indications that world powers are not so quick to give up control of their former colonial powers. While they may or may not retake these regions physically, they often control them in other ways.

~ Neocolonialism: the use of economic, political, cultural, or other pressures to control or influence other countries, especially former dependencies

~ Irredentism: a policy of advocating the restoration to a country of any territory formerly belonging to it

* Russia's conflict with sections of the Ukraine stems partially from irredentism.

The Cold War

Key Terms:

~ Satellite State: Fully independent state under strong influence from other states
~ Buffer States: States in between two opposing states that separate those states
~ Shatter belt region: a region caught between stronger colliding external cultural-political forces, under persistent stress, and often fragmented by aggressive rivals
~ Choke point: A geographical land feature such as a valley or water way which narrows the path a military force can walk, stringing them out and making them vulnerable
~ The Truman Doctrine: A policy put in place by United States President Harry Truman that declared that the U.S. would support free people who are resisting subjugation, particularly by the Soviet Union

At the end of World War II, the Soviet Union, led by Josef Stalin, began to exert its influence over the countries near them in an attempt to spread communism and the Soviet way of life. The Western World, led by the United States and Harry Truman, declared that they would step in to prevent the take over of unwilling nations.

While the United States and Russia never got into a declared armed conflict in this "war" that lasted from 1947-1989, they supported opposite sides of conflicts in Korea (1950-53) and Vietnam (1964-1975).

During this time, Germany was split into East and West sections, with East Germany under Soviet control. The United States, along with Canada and most of Western Europe formed the North Atlantic Treaty Organization (NATO) in 1949, which began as a military alliance to defend against Soviet aggression. The Eastern European countries, in response to West Germany joining NATO in 1955, formed the Warsaw Pact, a military alliance to along with the Council for Mutual Economic Assistance (CoMEcon).

While the countries of Eastern Europe were not technically part of the Soviet Union, they were satellite states, mostly under control of the Soviet Union. In Hungary in 1956, and in Czechoslovakia in 1968, protests against Soviet control were met with tanks sent in by the U.S.S.R.

Devolution

~ Devolution: The movement of power from the central government to regional governments within the state or breakup of a large state (balkanization) into several independent ones is known as devolution

Causes of Devolution

1) Physical Geography

Countries with remote frontiers, isolated villages, rugged topography, or islands often seek to separate from their central government.
Example: France owns the island of Corsica, where it has seen separatist movements and armed conflict since the 1970s, often led by the National Liberation Front of Corsica (FLNC)

2) Social and Economic Disparity

Poor regions of a country can feel disadvantaged by wealthier ones. Richer areas of the country can also feel put upon by having to provide subsidies to poorer ones.
Example: The wealthier Northern Italy has talked of splitting from the South.

3) Ethnic Separation

Distinct ethnic groups want the opportunity to govern themselves.
Example: The Tamil minority in Sri Lanka (who are Hindu), having been fighting for decades for independence from the Sinhalese Buddhist majority.

4) Ethnic Cleansing

When one ethnic group tries to eliminate other groups, it causes a unique strain on the country.
Example 1: In Rwanda, in 1994, ethnic Hutu slaughtered between 500,000 and 1,000,000 ethnic Tutsi and moderate Hutus.
Example 2: In the wake of Yugoslavia's split, similar ethnic cleansings took place. As Serbs attempted to wipe out ethnic Albanians in the Kosovo region of Serbia in 1999, the United Nations stepped in, eventually leading to Kosovo's split from Serbia

5) Terrorism

Terrorist acts are sometimes designed to lead to devolution.
Example 1: The Irish Republican Army (IRA) fought the British in a war for Independence, and unhappy with a result that left Northern Ireland as part of the United Kingdom, continued terrorist action after the 1922 Anglo-Irish Treaty.
Example 2: The Euskadi Ta Askatasuna (ETA) is a separatist group of Basques in Spain using a series of bombings over decades to try and encourage separation
Example 3: ISIS disrupted much of Western Iraq and Syria before Iraqi and United States forces reclaimed almost of that territory in 2017

Balkanization

~ Balkanization: The process of a state fragmenting and dividing into several states

The best example of balkanization is Yugoslavia. In fact, it is where the term comes from. Yugoslavia was formed in the Balkans after World War I with the breakup up of the Austro-Hungary Empire. It was never a comfortable state because of the variety of ethnicities forced together. After World War II it became a satellite state of the Soviet Union, but when the U.S.S.R. started to breakup, no one was there to force the battling ethnicities of Yugoslavia to stay together, and they split into seven countries: Croatia, Bosnia and Herzegovina, North Macedonia, Serbia, Montenegro, Slovenia and Kosovo.

Yugoslavia Wars - Break-Up of Yugoslavia
10-Day War in Slovenia (1991)
Croatian War of Independence (1991-95)
Bosnian War of Independence (1992-95)
Montenegro Declares Independence (2006)
Serbia Whittled to Current Form (2008)
Kosovo Declares Independence (2008)
Macedonia Declares Independence (1991)

Collapse of the Soviet Union

The Breakup of the Soviet Union, 1991

Speaking of the Soviet Union, devolutionary forces also led to it's breakup in 1991. The Baltic countries of Latvia, Lithuania, and Estonia split off first, soon followed by 11 other countries – Belarus, Ukraine, Moldova, Georgia, Azerbaijan, Armenia, Kazakhstan, Kyrgyzstan, Turkmenistan, Tajikstan, and Uzbekistan, leaving Russia by itself again.

Results of Devolution

Fragmentation into autonomous or sub-national regions:

1) Spain: Technically, Spain is a unitary country, not a federal country, but many argue this is in name only because they have given so much autonomy to the nationalities and regions that make up Spain. Even with this level of autonomy the Basque Autonomous Community and Catalonia have been pushing for separation from the country,

2) Belgium: Belgium is so separated politically between the Northern Dutch-speaking Flemish region of Flanders and the Southern French-speaking Walloon region that it is almost a confederation. In addition the Brussels-Capital Region, while wholly surrounded by Flanders, is its own region

3) Canada: The province of Quebec has a unique population, in that it was settled by the French rather than the English and 78% of the population speaks French as their first language. Quebec also has serious language laws to protect the French language. In addition, in 1999, Canada took territory away from the Northwest Territories and gave it to Nunavut, populated largely by Native population, 63.1% of whom speak Inuktitut as their first language.

4) Nigeria: Upon leaving British rule, Nigeria became a federal state with three regions. Through a series of wars and coups, more and more ethnicities have been given their own subregions (called states). So over 70 plus years, Nigeria has gone from three regions to 36 states

Disintegration of states:

1) Eritrea: After both Ethiopia and Eritrea got free from Italy's occupation after World War II, Eritrea became an autonomous region in Ethiopia (after a period of control by the British). That autonomy quickly declined, and Eritrea began a 30-year struggle for independence from 1961-1991. Eritrea became a recognized state in 1993, taking the coastal land of Ethiopia and leaving it landlocked.

2) East Timor: After spending four centuries under Portuguese control as Portuguese Timor, a separatist group declared East Timor to be an independent country in 1975, and it was immediately taken over by the owners of the western side of the island, Indonesia. After 24 years of violent struggle between the separatists and the Indonesian military, the United Nations stepped in 1999, and East Timor became a country in 2002.

3) South Sudan: After close to 50 years between the northern and southern sections of Sudan, the two sides agreed to a cease fire in 2005 with the stipulation that South Sudan could vote to secede. They did, with 98% in favor in 2011.

Supranationalism: Pros and Cons

Key Terms:
> ~ Supranationalism: three or more countries working together for a common goal

Biggest Pro of joining a Supranational Organization:
> Gain of power in world standing

Biggest Con of joining a Supranational Organization:
> Loss of state sovereignty

The United Nations

The best example of a Supranational Organization is the United Nations that was formed at the end of World War II. Five nations – The United States, Russia, The United Kingdom, France and China are permanent members of the U.N. Security Council. Germany is conspicuously absent from that list, but then, the Germans lost in World War II, shortly before its creation.

There are a total of 15 members of the Security Council, but the other 10 spots rotate. The five permanent members wield considerable power. For example: For a new state to join the U.N. it needs to get nine of the 15 members to recommend it as a step in the process. However, just one of the five permanent members can vote no and end the process.

While the U.N. is the most famous supranationalist organization, its restriction on sovereignty, especially of its permanent security counsel members is pretty low. The U.N. was not created to be a world government body, but rather a forum for world states to cooperate.

Still, some of the biggest countries in the world have recently started sovereignty protection campaigns, including the America First campaign of Donald Trump, and the popularity of the German anti-immigration party AfD, which some see as a threat to international coalition.

The European Union

The European Union formed in wake of World War II with a goal of uniting the continent more and ending hostility and wars amidst its members. It really started to take off and form its current version with the collapse of the Soviet Union and the influx of countries that brought about. By 2000, they had adopted their own currency (The Euro) and began to operate on an economic stage with the United States and the Soviet Union.

Advantages: helpful to European community and economy; makes many allies
Disadvantages: some nations in the EU, especially Germany, have more power than others.

~ Brexit: an abbreviation for "British exit," referring to the U.K.'s decision in a June 23, 2016 referendum to leave the European Union (EU). The move is somewhat controversial, with only 51.9% citizens voting for it. Nonetheless, it shows a concern of losing sovereignty shown by a slight majority of the British people. The British have still no fully exited as of 2019.

Causes of Supranationalism

1) military alliances

> Both NATO and the now defunct Warsaw Pact represented military alliances where countries agreed to work together to protect each other's sovereignty

2) creating economies of scale

> The concept of economies of scale states that the more you produce or purchase of something, the cheaper each individual item becomes to produce. This could would in two ways:

>> a) Let's say I am making desks and it costs me $40000 to set up the equipment and machinery to make desks and then $20 to create each desk. If I only make one desk, that desk will cost me $40020 to make, and I will have to sell it for more than that to make money. If I make 1000 desks, it will cost me $60000 total to make them, and therefore as long as I sell them for more than $60 each, I will make money.

>> b) Let's say that I am not making things myself, but I am purchasing them in large quantities like Walmart does. Because of the reduced cost in making more, and the desire to have large orders, manufacturers will often lower the price for each individual item based on the number you buy. So, if the local mom and pop store buys 100 televisions from Sony, they may get them at $200 a piece, whereas since Walmart is buying 1 million televisions from Sony, they get them at $100 each.

> The bigger the scale, the bigger the potential discount. Therefore, the incentive to operate across international borders becomes apparent.

3) transnational and environmental challenges

> Sometimes, the challenges of the modern world cannot be contained within a single country. One such issue, for example, is global warming. If things that individual countries are doing is harmful for everyone in the world, it is not enough for individual countries to address them.

> One organization that deals expressly with the problems created by global warming is the Arctic Council. It is an organization of the eight nations that have territory in the arctic – The United States, Canada, Finland, Norway, Sweden, Denmark, Iceland, and Russia. All of those nations have extensive indigenous people that live in the arctic, except Iceland. Any change in the climate that affects ice melting in the arctic is felt by these nations and people groups, and thus they are working together to prevent them.

~ Kyoto protocol: An international commitment to reduce greenhouse gas emissions, recognizing manmade climate control is likely, in which 192 countries participate. The United States never ratified the treaty, and Canada withdrew after originally signing.

Trade and Supranationalism

The major influence of supranationalism, like many things in the world, is the economy. While it is not the only focus of the supranationalist organizations below, trade is a big one:

Organization	Logo	Advantages and Disadvantages
AU African Union		Advantages: promoting continental unity, building toward peace and stronger human rights, especially for women Disadvantages: Financial issues, sometimes places African unity above international human right's standards
NAFTA North American Free Trade Association		Advantages: Imported goods are cheaper for the consumers in the United States, Mexico and Canada Disadvantages: Many factories moved to Mexico. Foreign goods cheaper than domestic in United States
OPEC Organization of Petroleum Exporting Countries		Advantages: Oil producing members Venezuela, Saudi Arabia, Iraq, Indonesia and other get money and control oil Disadvantages: Because the countries together have virtual monopoly on oil, prices have risen worldwide
ASEAN Association of Southeast Asian Nations		Advantages: Asian states like Cambodia, Indonesia, Thailand, The Philippines, Singapore and Myanmar are trying to see a benefit to Asia like the EU did for Europe Disadvantages: Somewhat soft on human rights issues

In 2018, the United States, Canada and Mexico reached an agreement in principle to replace NAFTA with the USMCA (The United States-Mexico-Canada Agreement). The leaders of all three countries signed it, but it has yet to be ratified by their legislative bodies.

Communication Technology

The more interconnected the world becomes, the smaller it seems. This spills over greatly into the realms of devolution and supranationalism. When people become aware of what others are doing in the world, it leads them to push to have similar rights. Whether that be internally controlling their own ethnicity (as in devolution) or an understanding of how they affect the rest of the world (supranationalism.

A third thing that world-wide interaction leads to is an increase in democritization (moving away from authoritarian practices to the people having a say in their government).

16 Things to Understand About Unit 5 Gold

1) Early plant and animal hearths

2) First Agricultural Revolutions (Mesopotamia, China, Indus Valley and Egypt)

3) Agriculture influences rural patterns (clustered, dispersed, or linear)

4) Rural survey styles (metes and bounds, township and range, long lot)

5) Physical environment and climate influences agriculture (Temperate, Mediterranean and tropical climates)

6) Agriculture alters the landscape (terraces, irrigation, draining wetlands, deforestation, pastoral nomadism)

7) Irrigation and the Aral Sea

8) The Everglades and Lake Okeechobee

9) Commercial vs. Subsistence Agriculture

10) Extensive vs. Intensive Agriculture

11) Shifting Cultivation

12) Columbian exchange

13) Second Agricultural Revolution and effect of New Technology

14) Bid Rent Theory and Application to Extensive and Intensive Agriculture

15) Von Thunen Model

16) Primary, Secondary, Tertiary, Quarternary, Quinary Economic Sectors

Early Agriculture

Early plant hearths
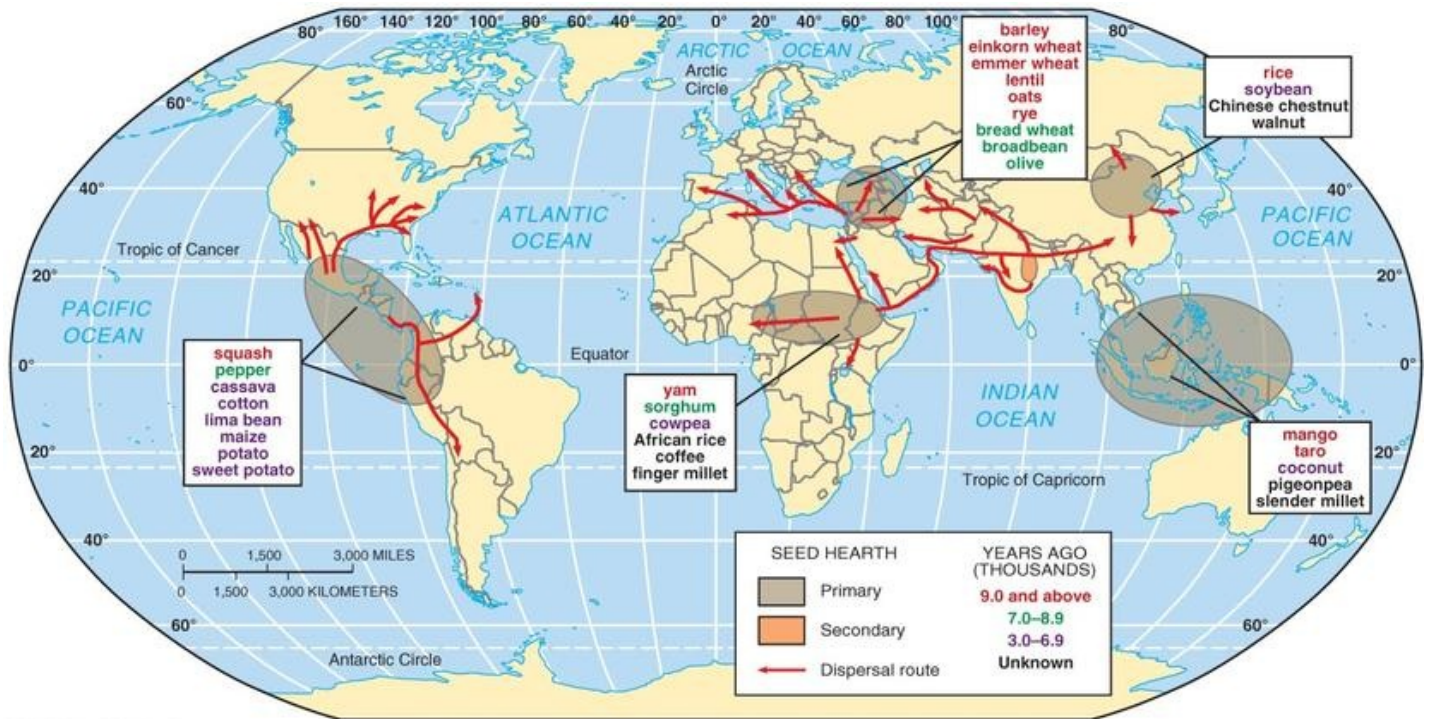
Animal Hearths
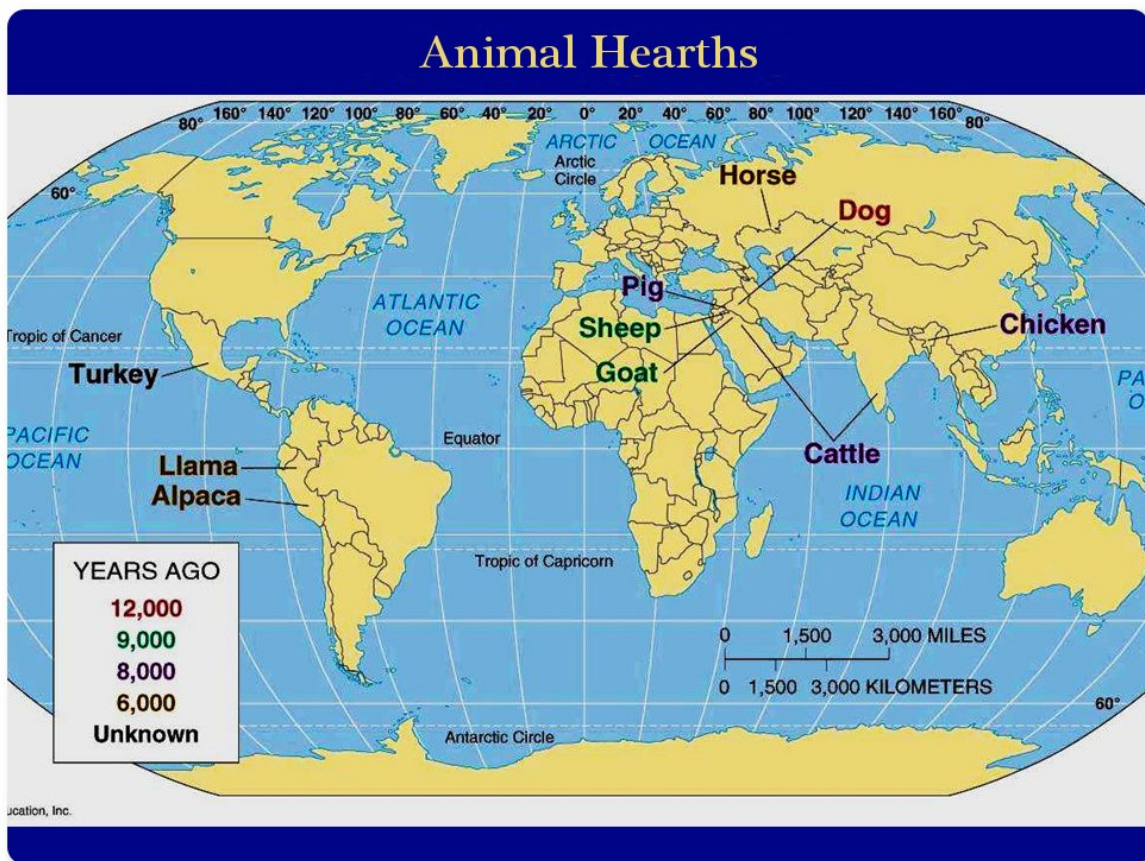
* Of note, very few pack animals originated in the Americas.

First Agricultural Revolution

~ First Agricultural Revolution: Sometimes referred to as the neolithic revolution, it marks the slow transition from hunting and gathering societies into sedentary societies who lived in cities and stored crops. It occurred in different times in different places and the full revolution took thousands of years.
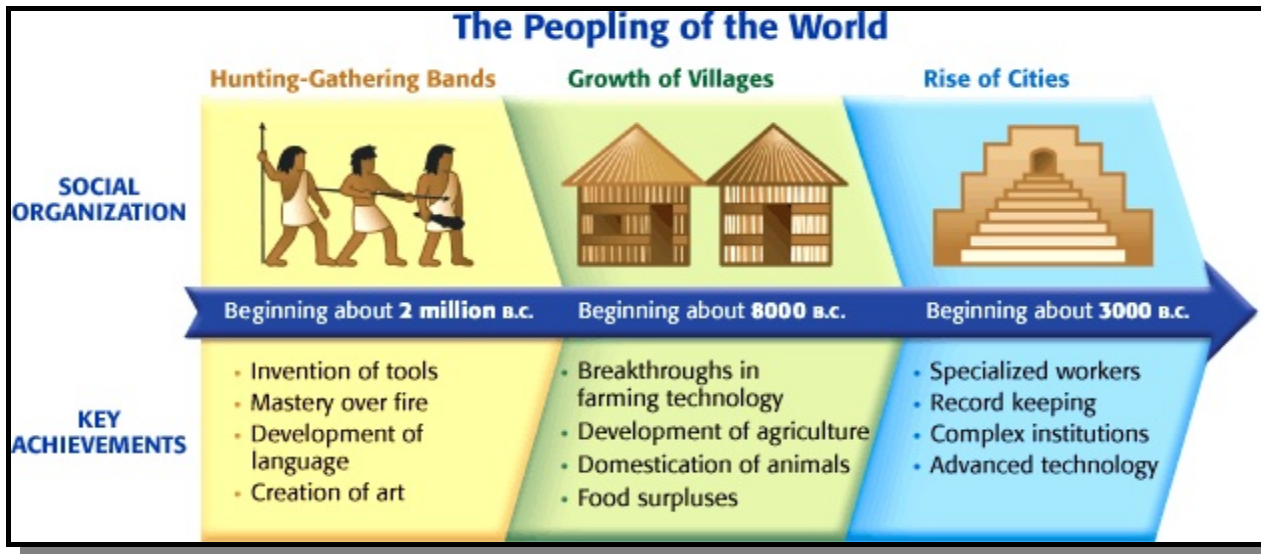
This early development of cities primarily happened in four areas, all because of their strong river basins – Mesopotamia, in Southwest Asia in between the Tigris and Euphrates rivers, in modern day India in the Indus river valley, in China around the Yellow and Yangtze rivers, and in Egypt around the Nile river basin.
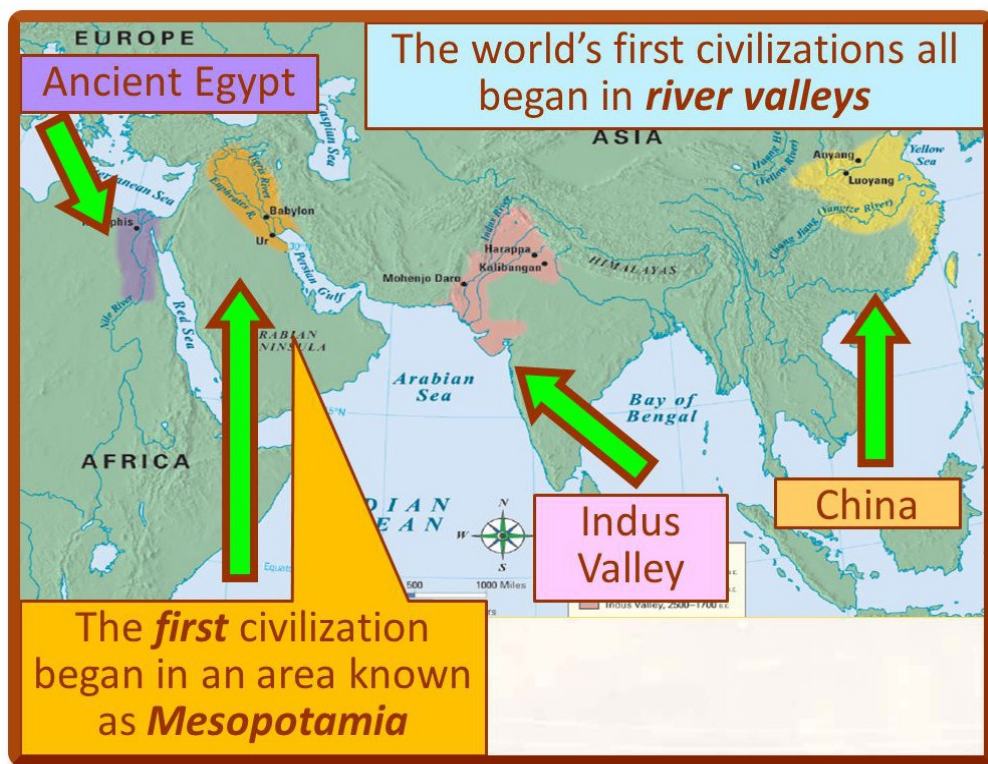
Rural Settlement Patterns and Survey Styles

Europeans tended to settle in clustered development, with homes located near each other in a hamlet or village, which is convenient for schools and other shared services, but required them to be a distance from their farms, and made watching livestock and crops difficult. Americans were encouraged to expand to the west with lang grants (usually 160 acres), and thus settled in dispersed patterns, which was great for tending livestock and crops, but far less efficient for shared services. Linear settlements typically develop along a main road or a river.

Settlement Patterns

Dispersed — Linear — Clustered
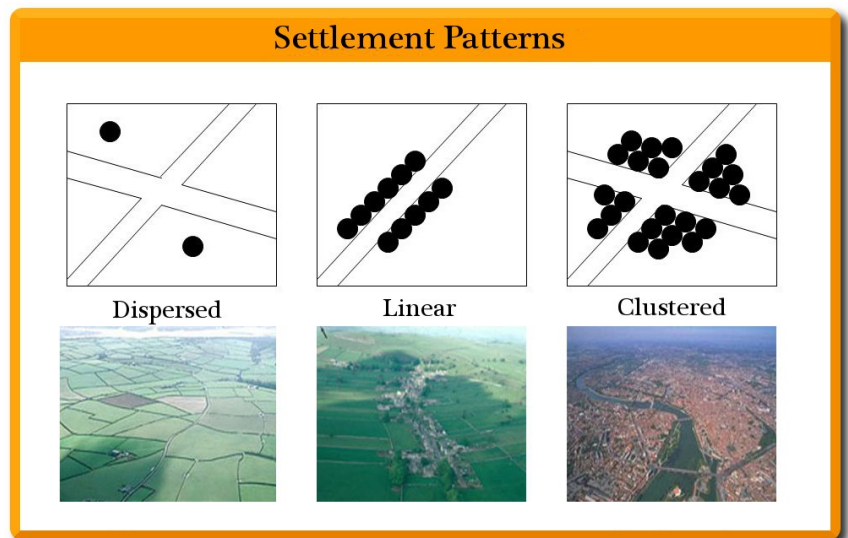
Types of land survey systems

Dominant Land Survey Systems in the U.S.

Township and Range

Metes and Bounds

Long-lot (French diffusion)

Federal rectangular grid

Irregular division in large estates

Irregular rectangular division

Land settled and subdivided by townships

Long-lot survey system

Metes-and-bounds survey

Rectangular grid of states and land companies
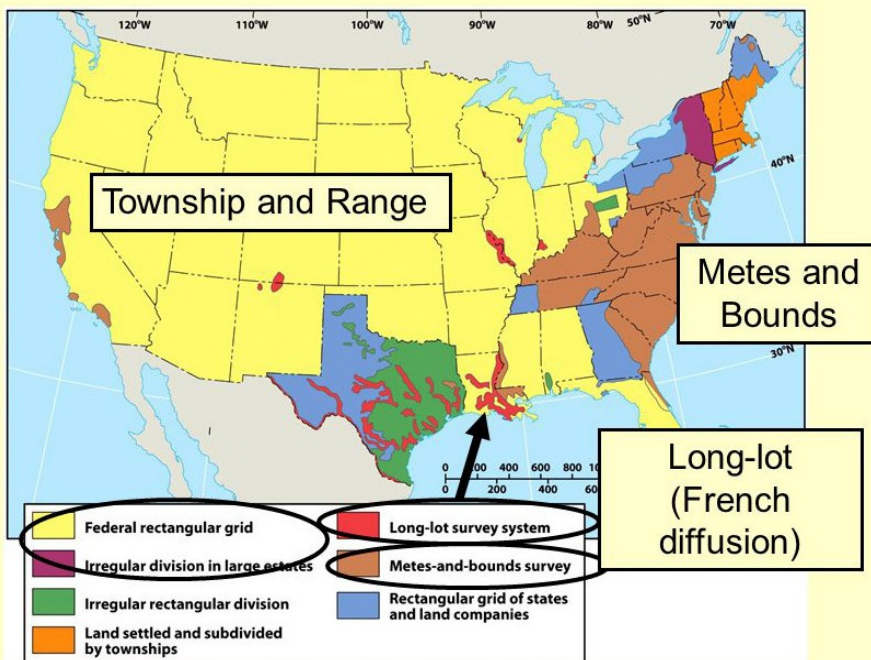
1) metes and bounds: A system of land surveying east of the Appalachian Mountains. It is a system that relies on descriptions of land ownership and natural features such as streams or trees.

2) long-lot: Distinct regional approach to land surveying found in the Canadian Maritimes, parts of Quebec, Louisiana, and Texas whereby land is divided into narrow parcels stretching back from rivers, roads, or canals.

3) township and range: A rectangular land division scheme designed by Thomas Jefferson to disperse settlers evenly across farmlands of the U.S. interior.

Agricultural Climate Regions

World Climate Regions

Legend:
- Polar
- Temperate
- Arid
- Tropical
- Mediterranean
- Mountains
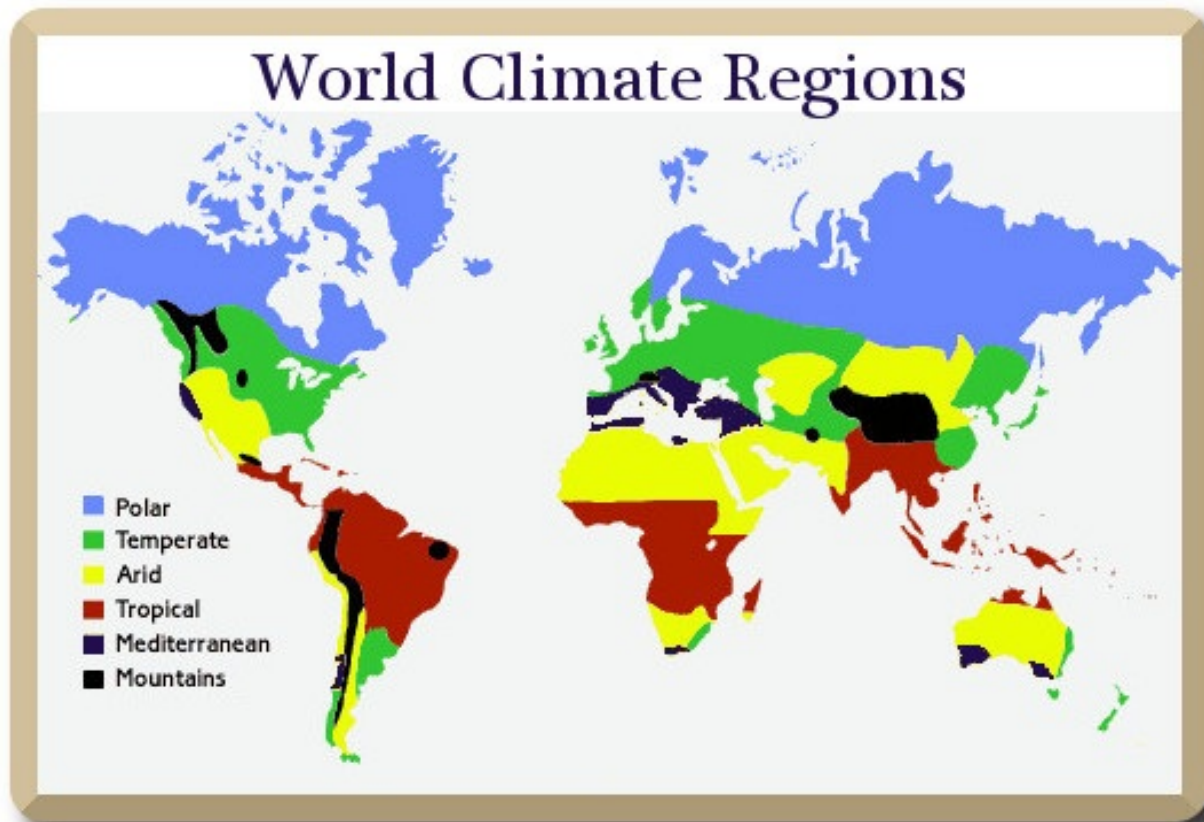
Not surprisingly, not every crop grows well in every climate. In addition, there are parts of the terrain that make it difficult to grow crops even in good climates, like rocky soil. Below is a list of some of the crops that grow best in different areas of the world:

Temperate Climate	Mediterranean Climate	Tropical Climate
Wheat, corn, oats, barley, rye, wild rice, onions, soybeans, figs, peanuts, and mustards	Olives, figs, dates, citrus fruits, grapes, tomatoes, chili peppers, cabbage, and cucumbers	Rice, sugar, bamboo, vanilla, cocoa, coconuts, rubber, pineapple, ginger, avocados, and breadfruit

Altering the Land for Agriculture

Irrigation

When water is moved from its natural source (like a lake or river) to aid in agricultural production.

Draining Wetlands

Removing water from a wetland to make it more suitable for farming.

Terracing

Method of farming where flat surfaces are carved into hills or mountains, providing areas for farming.

Pastoral Nomadism

Wandering from place to place with herds of animals; can cause overgrazing if herd gets too large.

Deforestation

Clearing all the trees and undergrowth from an area, typically to create a space suitable for farming.

Issues with altering land for agriculture:

Any time you drastically alter the land, you run the risk of having environmental fall out from the changes you made.

EXAMPLES:

1) The Aral Sea

The Aral Sea was a giant lake near the border of Kazakhstan and Uzbekistan, so big, in fact, people mistook it for a sea instead of a lake. However, in the 1960s the Soviet Union started using the two rivers that feed it (the Amu Darya and Syr Darya) to irrigate the desert nearby. From 1964-2015, the Aral Sea shrunk to 1/4 of its original size.

2) The Everglades

On again off again drainage efforts in the 19th and early 20th centuries caused massive ecological issues in South Florida, while pesticides from new farm land caused severe damage to Lake Okeechobee.

Subsistence Agriculture vs. Commercial Agriculture

Type	Subsistence Agriculture	Commercial Agriculture
Definition	A farming system that grows crops mainly for consumption by farmers and their families.	A farming system that grows crops primarily for sale rather than for consumption on the farm.
Examples	~ Shifting cultivation: sometimes called slash and burn, it uses fire to create fields for crops but only plants there a short time ~Pastoral nomadism: grazing animals on wide spaces (usually in arid regions) ~ Wet Rice Farming: rice cultivation in a flooded field	~ Plantations: Usually done in the tropics to grow cash crops ~ Mediterranean Agriculture: Growing fruits and orchard crops ~ Factory farms: tends to have animals packed into tight spaces ~ Dairy farms: Large-scale milk production
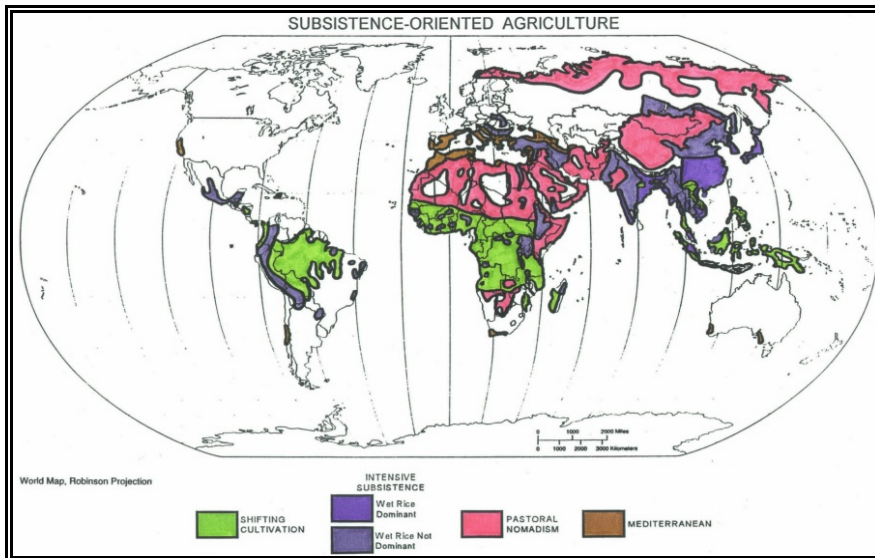
Subsistence Traits:

~ small farms
~ basic machinery
~ large percentage of people farm
~ diverse agricultural activity
~ grow to eat

Commercial Traits:

~ large farms
~ complex machinery
~ small percentage of people farm
~ specialized agriculture
~ grow to sell
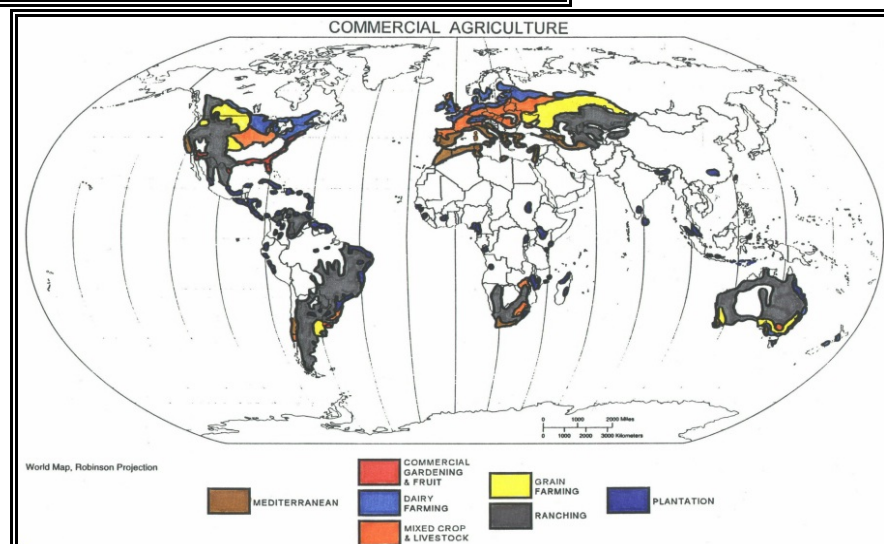
Intensive vs. Extensive Agriculture

~ Intensive agriculture: a form of agriculture in which farmers must expend a relatively large amount of effort to produce the maximum feasible yield from a parcel of land

~ Extensive agriculture: consists of any agricultural economy in which the crops and/or animals are found on large areas of land with minimal labor input per acre

*There are commercial and subsistence forms of both intensive and extensive agriculture.

Intensive Commercial

Location: Near urban center and transportation hubs

Inputs: Large amounts of labor and machinery

Examples: dairy farming, plantations

Intensive Subsistence

Location: Near densely populated areas with local market access

Inputs: labor-intensive production on small plots of land

Examples: farmers with wide crop variety

Extensive Commercial

Location: Near transportation centers with access to processing centers

Inputs: Small amounts of labor and machinery on vast stretches of land

Examples: Grain farming, livestock ranching

Extensive Subsistence

Location: Sparsley populated areas with access to local markets

Inputs: Minimal machinery, large amounts of land, sometimes high labor

Examples: Pastoral nomadism and shifting cultivation

Shifting Cultivation and the Columbian Exchange

~ shifting cultivation – a three stage system of agriculture:

(1) Slash and burn a fallow field

This allows the nutrients from the burned area to soak into the soil to make it easier to plant

(2) Plant on that field for a short time

While the slashing and burning gives the field a short-term use, this is generally weaker soil and it will only be suitable for a short time

(3) Move on to a new field, leaving the first field fallow again

This process is repeated on multiple fields, meaning that the subsistence farmers have to cover a great deal of land over a number of years, making it extensive agriculture

~ The Columbian Exchange: the widespread transfer of plants, animals, culture, human populations, technology, diseases, and ideas between the Americas, West Africa, and the Old World in the 15th and 16th centuries.

The Columbian Exchange

The Second Agricultural Revolution and Bid Rent Theory

Key Terms:
>   Second Agricultural Revolution: an increase in crop production caused by an influx of new methods and simple innovations, it began in the Middle Ages
>   Industrial Revolution: major changes in technology and the ways of production; changed small-scale craft into mass production, it began in the late 1800s-1900s

Innovation and food security:

U.S. agriculture and population growth 1800-1900

Hereford cattle brought to the U.S., reportedly by politician Henry Clay

Hiram Moore invents the combine harvester

Brahman cattle, known for their parasite resistance and drought tolerance, arrive in the U.S.

Refrigerated rail cars begin transporting meat across the U.S.

Angus cattle brought to U.S.

Second Morrill Act passes, establishing many historically black land grant universities

| 1817 | 1834 | 1854 1860 | 1873 | 1890 |

1800 — 1831 — 1842 1850 — — 1862 — — 1900

U.S. population at 5,308,483

Cyrus McCormick invents the mechanical reaper

U.S. population at 23,191,876

1862 Lincoln approves creation of USDA, Homestead Act and Morrill Land Grant Colleges Act.

U.S. population hits 76,212,168

First grain elevator built

Population data from the U.S. Census Bureau

The Second Agricultural Revolution with its curved metal plow, horse collar, and four course crop rotation produced more food with fewer workers. The rural workers who lost their jobs moved to the city, getting jobs there. This helped lead to the industrial revolution, which in turn made even better farm equipment like the seed drill and cotton gin. Which freed up more workers.
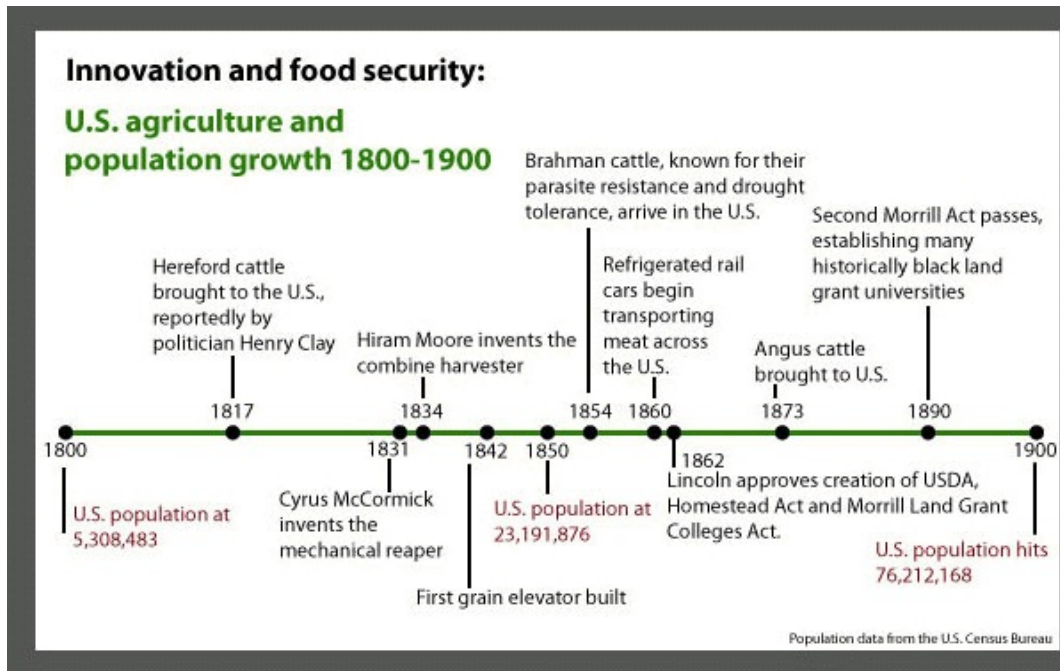
The Bid Rent Curve for Agriculture

Typically, the Bid Rent Curve is used to determine where in a city different people will be living, and we will see it again in regards to cities. However, the basic concept of the Bid Rent Curve (that land is more expensive closer to the city) also can explain how far from the city different crops are planted.

BID RENT CURVE (economic rent)

Distance from city

Economic rent

Residential
Dairy
Wheat
Grazing

Dairy
Wheat
Grazing
Waste

R Residential
• City centre

> As distance from city center increases, cost of land goes down
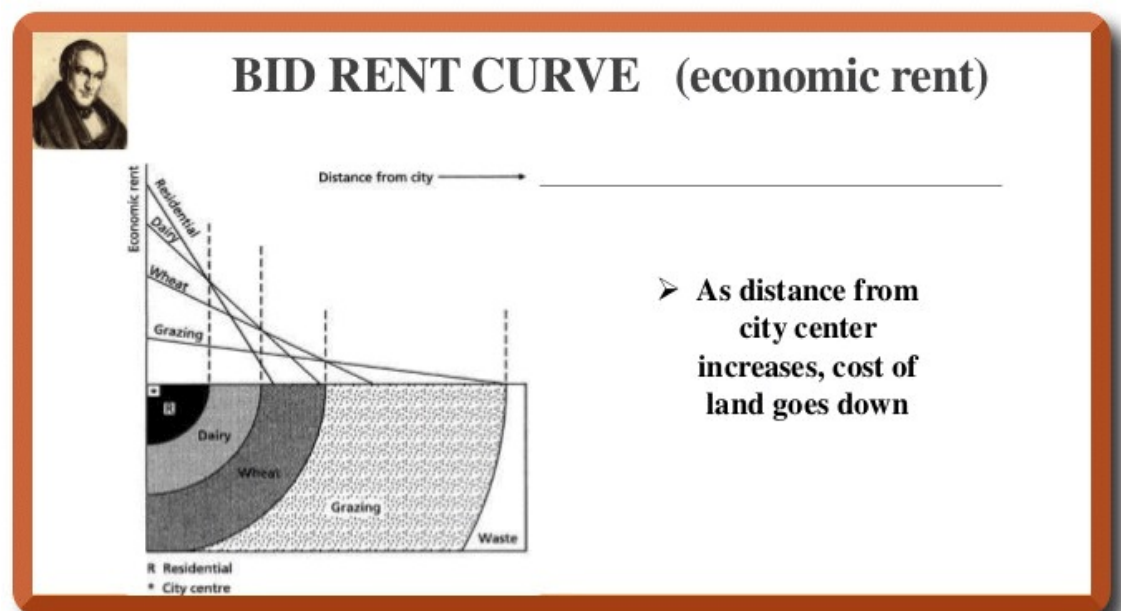
Von Thunen Agriculture Land Use Model

So again, the guys that design these things are important, because the AP Test likes to ask about them by name. In this case the guy in question is J.H. Von Thunen, who was an economist and land owner in Germany in the early 1800s. His model outlines rural land use in Germany before industrialization. He based his model on a few assumptions:

1) The city is located at the center of an isolated state with no government regulation
2) The isolated state is surrounded by an unoccupied wilderness.
3) The land of the state is completely flat and has no other natural landmarks
4) The soil quality and climate are consistent throughout the state
5) Farmers in the state transport their own good to the central city; so there are no roads
6) Farmers act to maximize profit.

The two main things that Von Thunen's model shows is the balance between land cost (it costs more closer to the city) and transportation cost (the heavier the item, the more it costs to move). To maximize profit, the farmer had to take the transportation cost and production cost and subtract it from the market value.

The left side of the model at the left is a representations of Von Thunen's original model. It has five basic layers:
~ Central City
~ Dairy & Intensive Farming
~ Timber & Firewood
~ Extensive field grains (which this map breaks into two levels)
~ Ranching
Past ranching would be wilderness.

The left side of our map shows how small things could change the equation. If a river ran to the city it would change the shape of the rings around the city, because people could get perishables from further away in a timely manner down the river.

Modern applications of Von Thunen

That marks just a small change by putting in a river, but development and innovation over the 150 plus years since Von Thunen first proposed his model is much greater than that. Some of the biggest changes are in the box to the right.
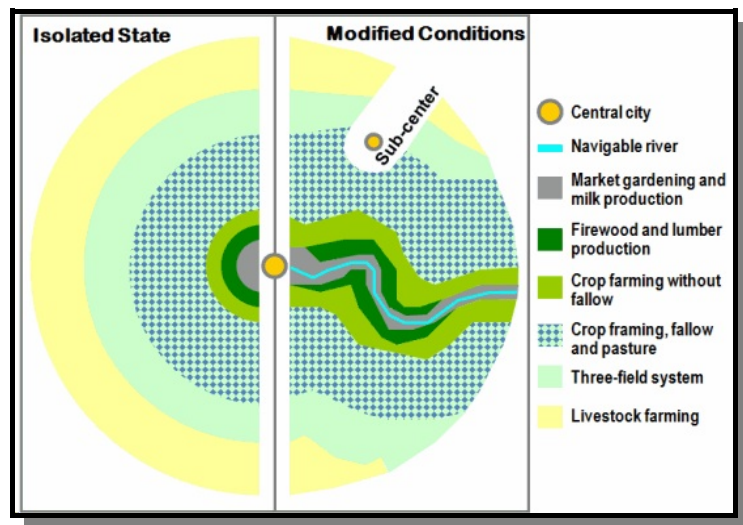
~ Modern transportation is more efficient.

~ Transportation cost is no longer proportional to the distance traveled.

~ Firewood is no longer a large factor

~ Technology has reduced threat of perishability

Types of Economic Activity

LEVELS OF ECONOMIC ACTIVITY

TERTIARY SECTOR
Provides services to consumers and the other sectors of industry

SECONDARY SECTOR
manufactures goods using the raw materials provided by the primary sector

PRIMARY SECTOR
extracts and uses the natural resources of the earth

Primary

Definition: Taking things directly from the ground

Examples: farming, mining, fishing

Predominant in: LDCs (Periphery)

Secondary

Definition: Refinement of the products taken from the primary sector

Examples: manufacturing, cooking

Predominant in: LDCs (Semi-periphery)

Tertiary

Definition: Services related to products

Examples: sales, bankers, doctors

Predominant in: MDCs (Core)

Sometimes the tertiary sector is split into three sections, thus creating two higher levels.

Quaternary

Definition: Processing of info and finances

Examples: legal services, insurance

Quinary

Definition: Specialized or technical knowledge

Examples: scientific research, CEOs

16 Things to Understand About Unit 5 Purple

1) Large Scale Commercial Farming (monoculture, monocropping) replaced family farms; enclosure movement

2) Technology in agriculture increases carrying capacity and economies of scale

3) Green Revolution positives and negatives

4) Biotechnology, Genetically Modified Organisms, and aquaculture positives and negatives

5) Plantation Farming; feed lots vs. ranching

6) Environmental effects of agriculture

7) Urban farming, organic movement, community-supported agriculture (CSA), and local food movement

8) Fair Trade, value-added specialty crops, and dietary shifts

9) Commodity chains and the global nature of Agriculture

10) Global food distribution is affected by infrastructure, political relationships, and world trade

11) Some countries are dependent on one primary export

12) Economic effects of food production practices (food-processing facilities, food markets, distribution systems, government policies, economies of scale)

13) Challenges in feeding the world

14) Food deserts

15) Societal effects of agricultural practices

16) Gender roles in Agriculture

Agribusiness

~ Agribusiness: Commercial agriculture characterized by integration of different steps in the food-processing industry, usually through ownership by large corporations.

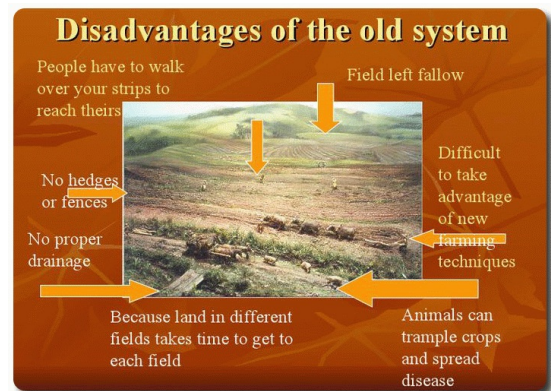~ Monoculture: Dependence on a single agricultural commodity, Growing only one type of plant over a large area

~ Enclosure movement: The process of consolidating small landholdings into smaller number of larger farms in England during the eighteenth century.

~ Suitcase farm: A farm that no one lives own whose crops are harvested and planted by farmers who live nearby or by migrant workers.

Farms, while they may still be owned by families in America, are not the idyllic family farms that people picture anymore. In America, large scale commercial farming has replaced simple family farms. Because of modern technology, the carrying capacity of the land has increased and less people can grow far more.

Some of this has to do with economies of scale. By having giant farms each focus on one crop, the production of that crop has become more and more efficient, driving smaller farms who aren't doing that out of business.

In order to keep up with that efficiency, the United Kingdom started the enclosure movement, designed to combine the country's many small farms into bigger more efficient ones. Some of the reasons are listed on the left.

Disadvantages of the old system

People have to walk over your strips to reach theirs
Field left fallow
No hedges or fences
Difficult to take advantage of new farming techniques
No proper drainage
Because land in different fields takes time to get to each field
Animals can trample crops and spread disease

Some quick facts:

Monoculture

~ In 1800, 83 percent of the American Labor force worked in agriculture. Today, less than two percent of the American population work in agriculture.

~ Since 1950, the total yield on U.S. corn has increased more than 360 percent.

~ The pounds of grain a dairy cow needs to produce 100 pounds of milk has decreased by 40 percent in the last 40 years.

~ The state of Iowa alone grows three times as much corn as Mexico.

Green Revolution and Gene Revolution

~ Third Agricultural Revolution: Occurred in the late 20th century with extensive mechanization, biotechnology, and reliance on irrigation and chemicals.

~ Biotechnology: A term applied to any technological innovation that is designed to improve the usefulness of plant and animals species for human agricultural purposes

What is the Green Revolution?

~ Large increase in crop production in developing countries by using pesticides, fertilizers and high-yield crops
~ Meant to alleviate world hunger
~ Focused on LDCs
~ Innovations shared with governments and agencies

Positive Effects: Doubled irrigated land; staved off famine in Asia

Negative Effects: increase in debt to farmers; soil fertility declined; increased pesticide and fertilizer residue

What is the Gene Revolution?
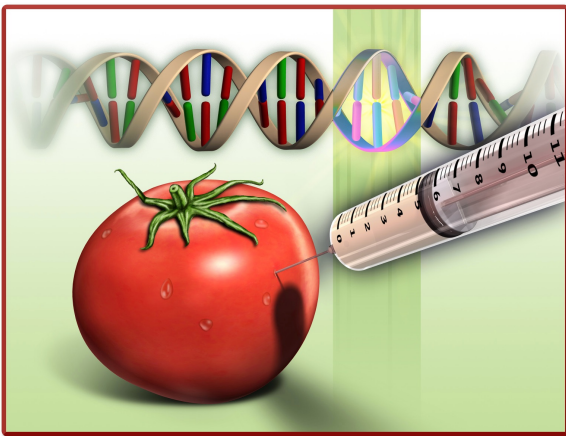
~ Genetically Modified Organisms (GMO)
  - corn, soybeans, rice, cotton, canola
~ Genetically engineered plants and animals
~ Focused on MDCs, especially United States
~ Monsanto: corporation that sells GMOs
~ Genetically engineered crops protected by patents

Positive Effects: Can grow crops that produce more yield, grow quicker, use less nutrients, are more resistant to adverse conditions and pesticides, and can be grown with less fertilizer

Negative Effects: Companies' goal is profit, so adequate testing is not guaranteed, and since the organisms wouldn't occur naturally, their side effects can be highly unpredictable

~ Aquaculture: use of river segments or artificial bodies of water such as ponds for the raising and harvesting of food products including fish, shellfish, and seaweed

*Aquaculture can create jobs, encourage protection of coastal waters, and increase food supply, but it can also conflict with local species, pollute with extra nutrients, and threaten local fishermen.

Plantation Farming, Ranching, and Feedlots

Plantation Farming

Tea Plantation in Wazuka in the Kyoto Prefecture of Japan

Banana Plantation in the Canary Islands

Palm Tree Plantation in Israel's Aravah Desert

In the United States, the word plantation is associated with the South and slavery prior to the Civil War. While that is one image of plantations, the key element to plantations is the production of cash crops like sugar and cotton, which is still going on in tropical climates. While the workers may not be in slavery, they are often still exploited for cheap labor.

Livestock Ranching

The raising of domesticated animals for the production of meat and other byproducts such as leather and wool under range conditions. The grazing method is slower than feedlots, but many argue that it produces healthier food.

Found in U.S., Argentina, China and Australia

Feedlots

Places where livestock are concentrated in very small areas and raised on hormones and hearty grains that prepare them for slaughter at a much more rapid rate than grazing; often referred to as factory farms.
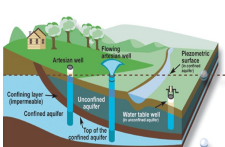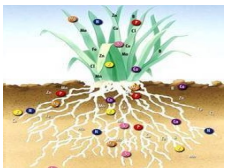
Found predominantly in Western United States

Consequences of Agriculture

Pros of Agriculture	Cons of Agriculture
~ Less variance in food supply	~ Can be harmful to environment
~ More food, less harvesters of it	~ Many people don't know how to get food for themselves
~ Rapid population growth	~ Mass production of livestock can cause mistreatment of animals
~ Creating of cities	
~ Helps economy (variance of jobs)	~ More chemicals
~ More choice and variety of food	~ Rapid population growth in areas that can't support it

Environmental concerns of agriculture

~ Desertification: the development of desert-like conditions from over working of the land

Issue	Visual	Causes	Effects
Soil Degradation		Deforestation, overgrazing and excessive use of pesticides	Desertification, loss of farmable land, polluted water supplies and erosion
Overgrazing		Continuous grazing cycles, too many animals, poor management of animal grazing	Desertification, soil erosion and soil degradation
River and Aquifer Depletion		Excessive pumping and draining of water supplies	Loss of water supply, deteriorating water quality and land subsidence (collapsing)
Animal Wastes		Large concentration of animals in factory farms, improper waste storage and management	Polluted water supply, air pollution, and release of harmful greenhouse gasses (methane)
Extensive Fertilizer and Pesticide Use		Monoculture, GMOs, and farms that place priority on maximizing profits	Chemical run-off into water supplies, pollution, destruction of ecosystems, soil degradation

Organic Agriculture, Local Food Movement, Urban Farming

Because of the backlash against modern agriculture, there has been a movement toward more organic agriculture. Organic agriculture is a movement toward all natural foods that are not created using GMOs, chemicals, fertilizers or pesticides, that are grown naturally.

Organic Methods of Agriculture

PROS

~ tastes better; healthier for human beings

~ environmentally friendly

~ saves more of naturally occurring nutrients

~ supports local farms which support the economy

CONS

~ Costlier

~ Food expires quicker

~ Research is not proven to be 100% accurate

~ can not be transported over long distances
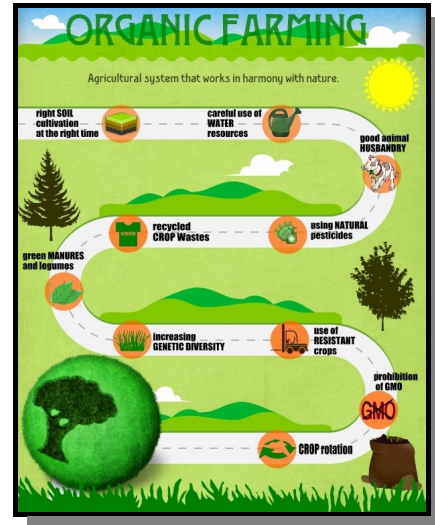
Local Food Movement

The Local Food Movement is an attempt to get more people to buy from local producers to slow down the rate of globalization of the food market.

PROS	CONS
~ said to be better for you	~ more expensive
~ fresher, without toxins	~ expires quicker
~ pays money to local area	~ ignores export needs of others

The local food movement can go one step further in community-supported agriculture. In this system, consumers interact more directly with producers, investing in the harvest itself, so taking on some of the farmers risk. In return, the consumer often gets a weekly or bi-weekly box of produce or other farm goods.

Urban Agriculture

~ Urban farming is the practice of cultivating, processing and distributing food in or around urban areas. It can involve animal husbandry, aquaculture, agroforestry, urban beekeeping, and horticulture.

It often is part of organic and local food movements, but it does not have to be.

Fair Trade, Value-Added Specialty Crops and Dietary Shifts

Fair Trade

Fair trade is a movement to move more of the money paid for products in great demand that are often grown in LDCS (like coffee, bananas, sugar and cocoa) to the places where they are produced. Prior to the fair trade movement, very little of the money went to the producers.

PROS

~ Workers get higher share
~ Lowers discrimination by sex
~ Child labor is reduced

CONS

~ more expensive
~ Mostly only for coffee and chocolate
~ No drive to make process more efficient

Value-added Specialty Crops

The three ways that the USDA defines value-added crops:

1) A change in the physical state or form of the product (such as milling wheat into flour or making strawberries into jam).

2) The production of a product in a manner that enhances its value, as demonstrated through a business plan (such as organically produced products).

3) The physical segregation of an agricultural commodity or product in a manner that results in the enhancement of the value of that commodity or product (packing candies in a peanut-free factory to prevent cross-contamination for peanut allergies).

Dietary Shifts

People's diets change: Whether people are eating more locally grown things, have gained enough wealth to add foods to their diet (usually meat), have just been introduced to an exotic (to them) food that is catching on (the consumption of avocados increased more than five fold in the United States over the last 30 years), or just want to eat more healthily, the world market has to adjust to fill those needs. On the left is a look at what our diet should look like to feed everyone vs. what it does look like.
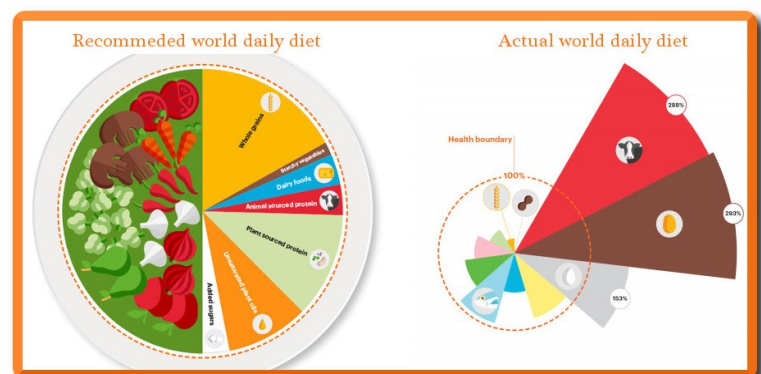
Commodity Chains

Key terms:

     ~ Commodity: an item produced to satisfy wants or needs

     ~ Commodity chain: the path a commodity travels from producers to consumers

The Cocoa Commodity Chain

Cocoa pods are harvested from cocoa trees. (Oct - Dec)	The cocoa pods are collected in large baskets, which workers carry on their head to a curing area.
At the curing area farmers remove the cocoa beans from their pods and they are fermented and dried.	The dried, cured cocoa beans are then packed into sacks for transport.

Cocoa mass + cocoa butter + cocoa powder are produced at the processing factory.

Trucks transport the cocoa beans from the Port of Singapore to a processing factory.

A container ship transports the cocoa beans by sea to the Port of Singapore.
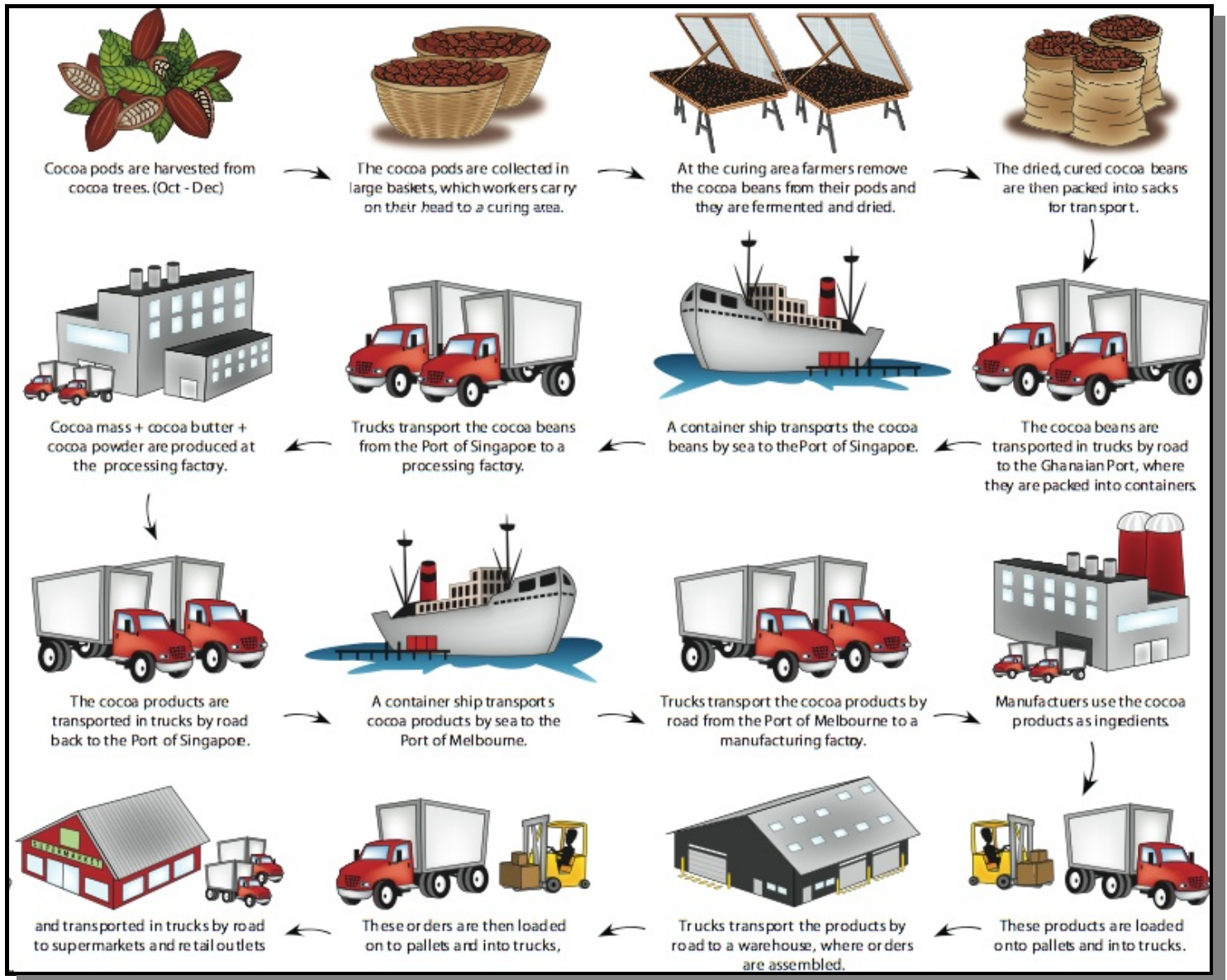
The cocoa beans are transported in trucks by road to the Ghanaian Port, where they are packed into containers.

The cocoa products are transported in trucks by road back to the Port of Singapore.

A container ship transports cocoa products by sea to the Port of Melbourne.

Trucks transport the cocoa products by road from the Port of Melbourne to a manufacturing factory.

Manufactuers use the cocoa products as ingredients.

and transported in trucks by road to supermarkets and retail outlets

These orders are then loaded on to pallets and into trucks,

Trucks transport the products by road to a warehouse, where orders are assembled.

These products are loaded onto pallets and into trucks.

As you can see from the commodity chain above, agriculture has become global in scale. Very few countries grow all their own food. Certain products grow better in certain climates, and most modern food products are a combination of many different components put together in different places.

In addition, the cocoa commodity chain shown above is pretty linear, but that isn't always the case. Each link of an extended chain links between resource producers and suppliers, various manufacturers, traders and shippers, wholesalers, and retailers. A circuit-board is a better metaphor for this concept than a chain because things are interconnected in so many ways

Global Food Distribution

There are many things that affect global food distribution:

1) infrastructure

If a country doesn't have the capacity to move products throughout their country, it is harder to trade with them. Simply put, it is hard to get products to the market when you live 200 miles inland in a country with no highway or railroad line to the ocean, an airport, or even other neighboring states

2) political relationships

How well countries are working together affects greatly how well they are trading food with one another. Trade agreements with Canada and especially Mexico, making it easier for the United States to import avocados for example. The trade war between the U.S. and China led to China seeking to import more food from Russia

3) world trade

Some countries are doing better economically than others, and nowhere is this more apparent than trade. Smaller countries with less varied economies are going to produce less things, which in turn is going to make them less self-sufficient and more dependent on other countries.

Many of these countries are producing luxury crops, one's not essentially for human survival, but with a high profit margin. After all, you can't eat tobacco or cotton, and if that is what you are mostly growing, you are going to have to trade with someone to feed your people

Dependency on one export

There are seven countries in the world that saw one agricultural export account for more than half of all their exports as recently as 2000:

Burundi	Niue	Sao Tome and Principe	Ethiopia	Malawi	St. Lucia	Uganda
Green Coffee	Taro	Cocoa beans	Green Coffee	Tobacco Leaves	Bananas	Green Coffee
75% of Exports	71% of Exports	69% of Exports	62% of Exports	59% of Exports	54% of Exports	54% of Exports

Economic Effects of Food Production

~ Food processing facilities: industrial businesses that transform raw fruit, animals or vegetables into other foods we can directly eat or into several ingredients used for cooking

For much of recent human history, a good portion of people have not been taking food directly from the ground and eating it. For various reasons, they process the food first. Some of those include:

~ longer food preservation
~ it saves time over preparing from raw materials
~ can provide assistance with dietary restrictions
~ providing additional nutrients

So, once we establish why we have food processing facilities, the next thing we need to address is where do we locate them? Some factors:

1) Access to markets

Whether it is access to the labor market that works at the facility or the market where the final product will be sold, where the markets are is a big consideration

2) Transportation

The better the roads leading into the processing facility, the more efficient it will be

3) Economies of scale

Mass production is more effective and affordable than individual production. If it is possible to locate a facility in an ideal location to be reached by many farms, it is far preferable than having smaller facilities next to every farm.

Food Policy

~ Food policy: the area of public policy concerning how food is produced, processed, distributed, and purchased. This often includes decision-making around production and processing techniques, marketing, availability, utilization, and consumption of food.

In LDCs, food policies have three main purposes:

1) to protect the poor from crises
2) to develop markets that will enhance efficient resource use
3) to increase food production that in turn promote an increase in income

Challenges in Feeding the World

The major challenges to world food supply:

1) Lack of food security

   Food security is defined as having reliable access to a sufficient quantity of affordable, nutritious food

2) Land lost to suburbanization

   As people spread outward, more and more acres for growing food is lost
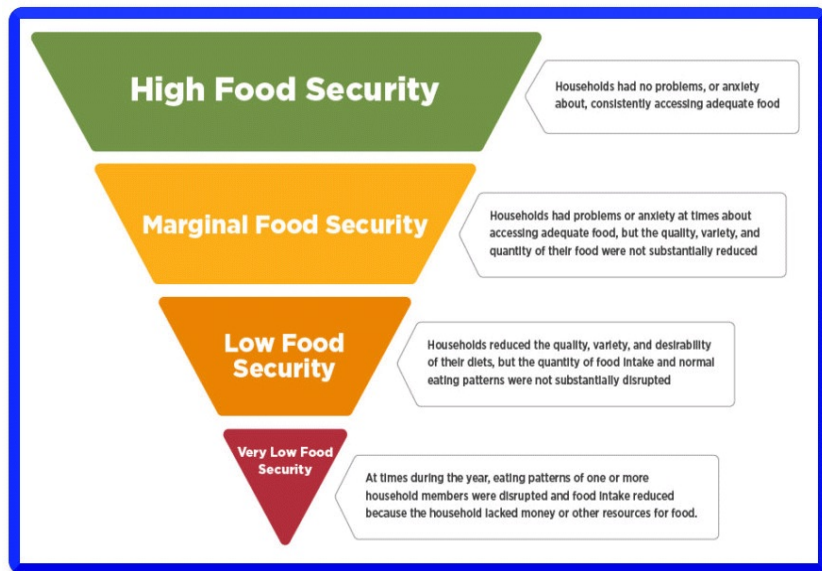
3) Extreme weather

   Much of the world's food requires specific climate conditions. Abnormal conditions in a region can cause problems

4) Problems with distribution systems

   Lack of infrastructure leads to problems getting food to people

5) Food deserts

   Food deserts are urban areas where it is difficult to buy affordable or good-quality fresh food.

Societal Effects of Agricultural Practices

As world changes and becomes interconnected when it comes to agricultural practices, it can have some pretty major effects on society as a whole. Let's look at three big areas for this.

1) Changes in diet

~ Nutrition transition: the shift in diet that coincides with economic, demographic, and epidemiological changes; specifically the transition of LDCs from traditional diets high in cereal and fiber to diets high in sugars, fat, and animal-source food

*As people get more resources, they invariably demand more meat in their diet
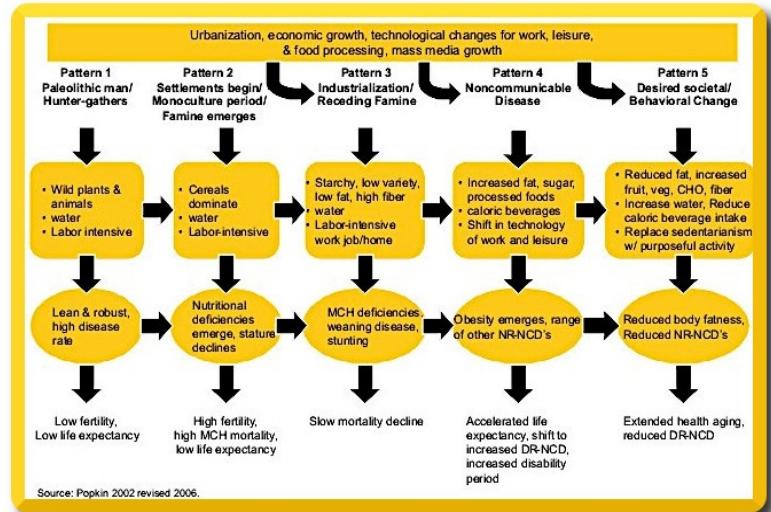
2) Changes in economic purpose

Most societies start off in subsistence agriculture, and that is still the practice in many LDCs in the world today. As societies and states begin to progress, they are more likely to work toward commercial agriculture, where the purpose becomes making money rather than surviving. In addition, LDCs are more likely to be in the primary sector of the economy, growing food. As they move up, they progress to an secondary sector with more manufacturing, which can include food processing..

3) Changes in the role of women in agriculture

Women make up about 40 percent of the labor force in agriculture, but it is close to 70 percent in countries still practicing subsistence agriculture. As states urbanize, men often move to the city, while women stay behind with the children and run the farm. This

continues until farms begin to mechanize, at which point, female participation drops off. In large-scale agribusiness, however, there role has diversified, as they work in sales, management, distribution, and research.

As far as food preparation, more women in the workforce means less women making food at home, and those that do cook are more likely to use more processed foods than before. Men have become more involved in the food preparation, but eating out is on the rise as well, with Americans spending more money in restaurants than on groceries for the first time in 2015.

16 Things to Understand About Unit 6 Gold

1) Site and situation

2) Borchert's epochs

3) Why we urbanize

4) Cities land use and residential buildings reflect & shape its culture, technological capabilities, cycles of development and infilling (infrastructure)

5) Burgess Concentric Zone Model

6) Hoyt Sector Model

7) Harris and Ullman Multiple Nuclei Model

8) Gravity Model

9) World Cities and Urban Hierarchy

10) Christaller's Central Place Theory

11) Megacities and Metacities

12) Rank-Size Rule and primate cities

13) Latin American city model

14) Southeast Asian city model

15) African city model

16) urban poverty, squatter settlements, flavelas and conflict over land tenure

Site and Situation

Settlements primarily take into account two things when picking a spot – what the location is like (site) and what the location is near (situation). Therefore, site is a little bit like absolute location, while situation is more like relative location.

| SITE	SITUATION
~ INTERNAL REASONS CITY WAS SETTLED	~ EXTERNAL RELATION TO OTHER CITIES
~ Has to do with the physical characteristics that lead to settling a city (quality of soil, building materials available, water supply, climate, ability to defend, natural shelter)	~ Has to do with a city's relation to other settlements and cities around the city, as well as physical features, and how well a city is likely to grow
~ Example: Paris was established at a point where an island allowed an easier passage across the river Seine, as well as providing defense, fishing, transport, and drinking water.	~ Example: Singapore is located at the southern tip of the Malay peninsula, and was basically built on a swamp, but it is a strategic trading point on the straight of Malacca between India and China.

Site Factors

Bridging	Dry Point	Conflux	Defensive	Wet Point	Aspect & Shelter
Where a river was shallow enough to be crossed or narrow enough to easily build a bridge	In especially wet areas, settlements were built on slightly raised land to avoid flooding or the unhealthy marshland	Where natural routes meet, such as several valleys or at the confluence of two rivers	In order to protect themselves from attack, settlements were built within a river meander, with the river giving protection on three sides	These settlements were built at a source of water in an otherwise dry area	Settlements were built in sheltered areas such as valleys or on bays on coastal locations. They would also be on south-facing slopes in the Northern Hemisphere

In industry site and situation are also applied to where to put factories.
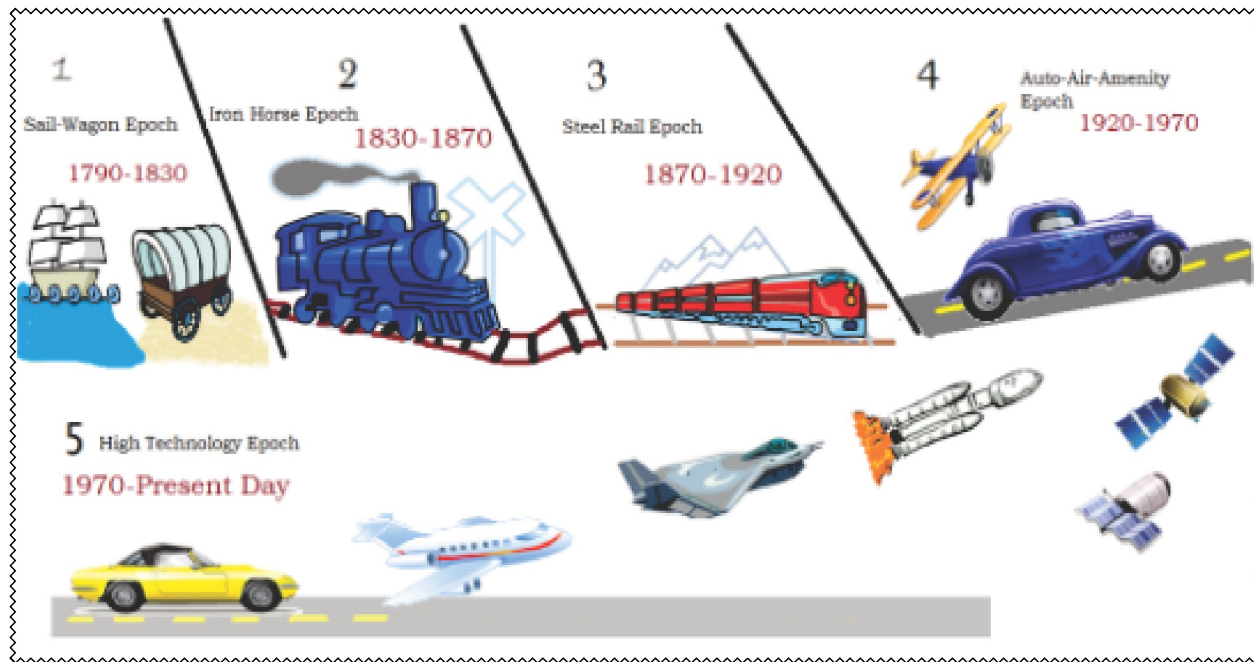
Site factors for factories consist of three things:
     1) land   2) labor   3) capital

Situation, meanwhile, has to do with where the different inputs are coming from, what transportation routes are available, and what important cities and markets are nearby.
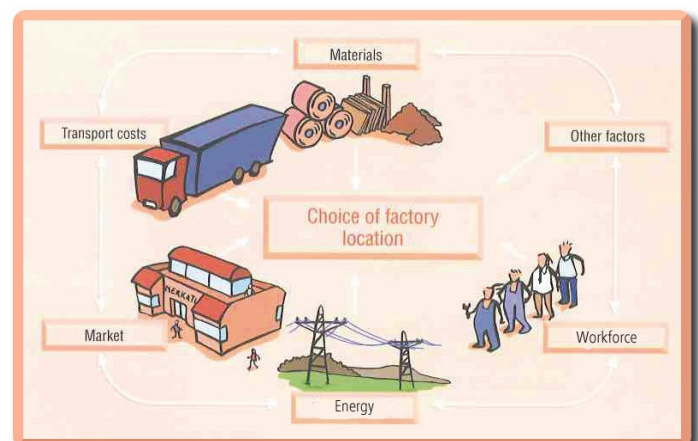
Borchert's Epochs of Urban Growth

John Borchert's model is supposed to explain the evolution of transportation over different time periods. He divided these time periods into what he calls the 5 epochs. The systems are based on how evolution of transportation and communication affected North American cities. As different transportation technologies rise and fall so do different urban centers rekated to them.

EPOCH 1: SAIL WAGON (1790-1830)
~ Defining technology: Conestoga Wagon and Ships
~ All sizeable U.S. urban areas on Atlantic coast or navigable rivers
~ Strong economic ties to Western Europe
~ small, compact centers based on horses and walking

EPOCH 2: IRON HORSE (1830-1870)
~ Defining technology: Steam engine, railroad and boat
~ Railroads become "tributaries" of ports and railroad hubs boom population wise
~ Steamboats help inland cities on rivers grow signifcantly

EPOCH 3: STEEL RAIL (1870-1920)
~ Defining technology: Mass production of steel
~ National network of railroads leads to modern pattern of urban cities
~ Some earlier big cities on water decline, while steel producing cities flourish

EPOCH 4: AUTO-AIR-AMENITY (1920-1970)
~ Defining technology: Internal combustion engine
~ Cars lead to oil field production and dense network of highways
~ Cities that provide amenities on the rise, as manufacturing declines

EPOCH 5: HIGH TECHNOLOGY (1970-Present)
~ Defining technology: The Internet
~ Distance less of a concern than before as everything interconnected
~ Long-term affect on cities remains to be seen

Causes of Urbanization

~ Rural: relating to or having characteristics of the countryside, rather than a town
~ Urban: having to do with cities
~ Urbanization: the process of by which towns and cities are formed and become larger as more people begin living and working in central areas
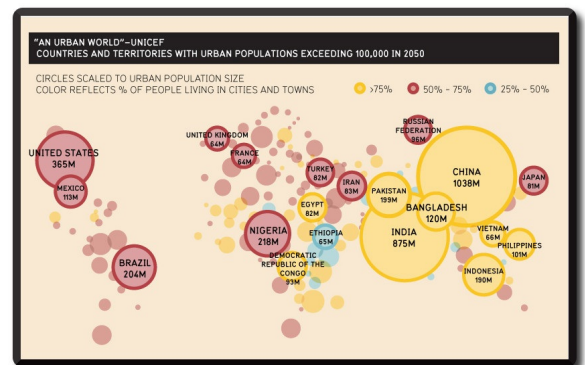
Some main causes of urbanization

1) Transportation

Borchert's epochs show us that as the modes of transportation change, the ideal places to live change with them.
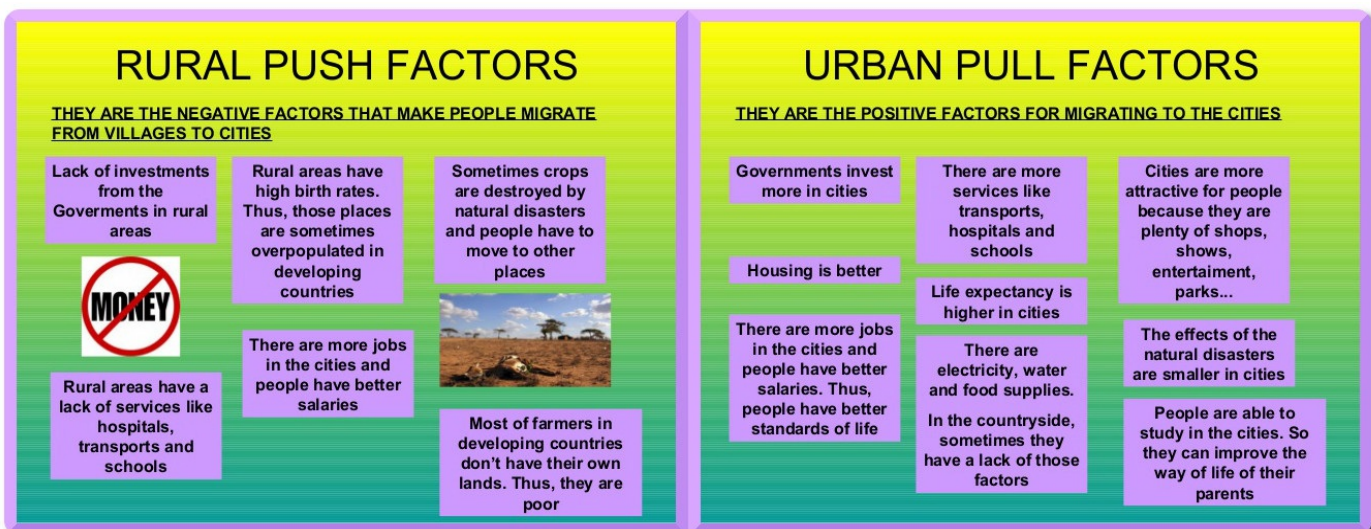
2) Population growth

Throughout history, rapid population growth has coincided with rapid growth of urban centers. When the population spirals up, it also usually flocks together. On the right is a map of the predicted population centers by 2050. The blue marks large populations with only 25-50% of it's people in cities. Notice how few of those there are compared to the states with more than 50% of the population in cities (red) or even more than 75% (yellow).

"AN URBAN WORLD"–UNICEF
COUNTRIES AND TERRITORIES WITH URBAN POPULATIONS EXCEEDING 100,000 IN 2050

CIRCLES SCALED TO URBAN POPULATION SIZE
COLOR REFLECTS % OF PEOPLE LIVING IN CITIES AND TOWNS   >75%   50% – 75%   25% – 50%

3) Economic development

Progression in the economic sectors from primary all the way to quinary naturally includes movement to cities. The primary sector economies are focused around obtaining raw materials, which naturally leads to a rural existence. The secondary sector and refinement of those materials is more easily accomplished if everyone is in one place. The tertiary service sector requires large amounts of people to serve, and so forth.

4) Rural to Urban Migration

RURAL PUSH FACTORS

THEY ARE THE NEGATIVE FACTORS THAT MAKE PEOPLE MIGRATE FROM VILLAGES TO CITIES

Lack of investments from the Goverments in rural areas

Rural areas have high birth rates. Thus, those places are sometimes overpopulated in developing countries

Sometimes crops are destroyed by natural disasters and people have to move to other places

There are more jobs in the cities and people have better salaries

Rural areas have a lack of services like hospitals, transports and schools

Most of farmers in developing countries don't have their own lands. Thus, they are poor

URBAN PULL FACTORS

THEY ARE THE POSITIVE FACTORS FOR MIGRATING TO THE CITIES

Governments invest more in cities

There are more services like transports, hospitals and schools

Cities are more attractive for people because they are plenty of shops, shows, entertainment, parks...

Housing is better

Life expectancy is higher in cities

There are more jobs in the cities and people have better salaries. Thus, people have better standards of life

There are electricity, water and food supplies.

The effects of the natural disasters are smaller in cities

In the countryside, sometimes they have a lack of those factors

People are able to study in the cities. So they can improve the way of life of their parents

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European Cities vs. American Cities

European and American cities are different in many way, but perhaps the primary difference is that in major European cities, the rich tend to live close to the center of the city, while in major American cities, the rich tend to live on the outskirts of the city.

Let's take a look out the Income distribution of Paris and New York City:
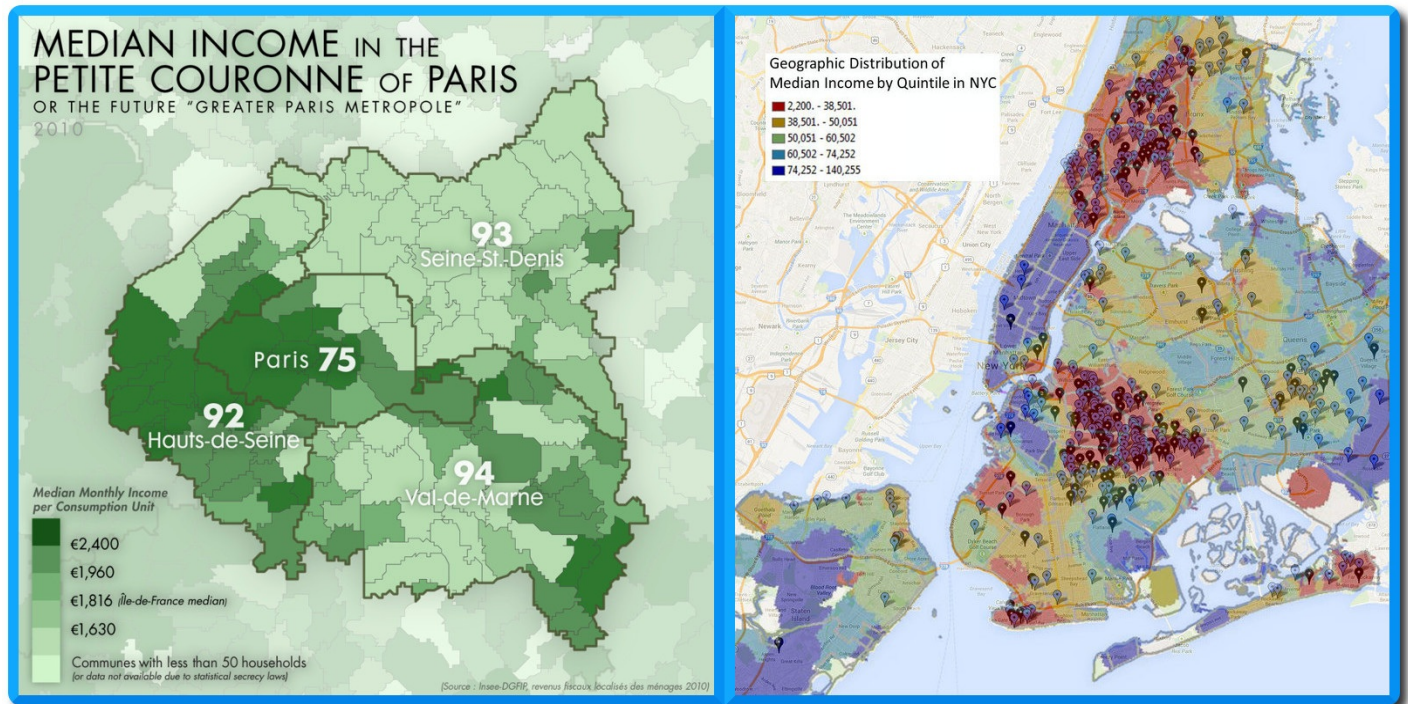
While neither map is perfect, you can see that the richest citizens in Paris (the dark green) tend to be closer to the center, while the richest citizens in New York (the dark blue) tend to hover around the edges. The question then becomes, why is that? There are a number of reasons why:

1) European cities are much older
> European cities were created in a time when modern transportation did not exist, which means if you wanted to get somewhere, you had to walk, so the rich lived closer.

2) Farm subsidies are much higher in Europe
> European farmers therefore have far less incentives to sell the farmland that surrounds their cities to people looking to move to the suburbs.
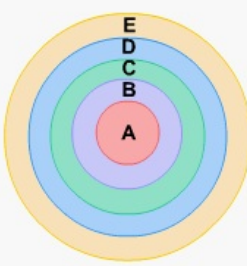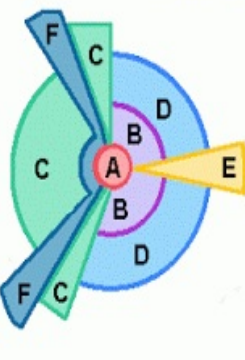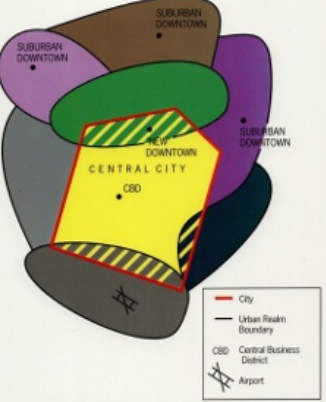
3) Energy costs much more in Europe
> This has two major effects. First, the gasoline required to drive into the city from the suburbs, is much more costly in Europe. Second, while have far more space than you need can be seen as a luxury in the United States, the cost to heat and cool that space is far more expensive in Europe, making it less attractive.

4) The crime rates in the inner city are higher in the United States
> Therefore, Americans see living in the city as far more dangerous than Europeans do.

North American City Models

Concentric Zone Model	Sector Model
Created by Ernest Burgess (1924)	Created by Homer Hoyt (1939)
~ Based on socioeconomic class, transportation costs and the Central Business District (CBD) ~ Lower class lives near the CBD ~ Upper and middle class live in suburbs ~ CBD has highest land value	~ Based on socioeconomic class and transportation costs ~ Upper class lives far away from lower class
Multiple Nuclei Model	Urban Realms Model
Created by Chauncey Harris & Edward Ullman (1945)	Created by James Vance (1964)
~ Urban growth occurs anywhere when given the opportunity ~ Edge cities occur ~ Stores in suburbs	~ Each realm is a separate economic, social and political entity that is linked together to form a metro ~ No CBD focus ~ Former downtown has poor residents

The Gravity Model

~ The Gravity Model: model that shows that interaction between locations is proportional to the multiplication of the two populations divided by the distance between them squared (though it is mostly used for migration)

The simplistic version of the gravity model of migration is as follows:

$$M_{ij} = \frac{P_i * P_j}{d_{ij}^2}$$

Mij = gravity model prediction of migration between origin i and destination j
Pi = population of origin State i
Pj = population of destination State j
dij = distance from origin i to destination j

The basic concept is that the bigger the cities and the closer together, the bigger their effect will be on each other. Let's look at a few cities is comparison to Lake City.

City	Population	Distance	Gravity
Lake City	67531	0	N/A
Gainesville	288212	41	11,578,373
Atlanta	5949951	266	5,678,757
Washington. D.C.	6216589	680	907,899
Havana, Cuba	2130000	487	606,492
Los Angeles	13131431	2089	203,207

Certainly, it is not surprising that Gainesville and Lake City would have the biggest influence on each other, but the gravity model does not even factor the University of Florida, which would likely increase the migration. However, it indicates that the interaction would be greater between Havana and Lake City than Los Angeles and Lake City. This happens for two reasons – the model doesn't take into account foreign countries or language barriers, and it only measures distance, with no regard to the social influence a place like Los Angeles and Hollywood may have.

World Cities and The Urban Hierarchy

~ World City: dominant city in terms of its role in the global political economy. Not the world's biggest city in terms of population or industrial output, but rather centers of strategic control of the world economy (The cities with the three major world Stock Exchanges – New York City, London, and Tokyo – are most often cited for this distinction

I. Hamlet
 A, Composed of a small rural settlement or small component of a larger settlement or municipality. They are typically unincorporated. They have little to no significance.
 B. Things you find in a Hamlet
  1. Gas Station
  2. Small cluster of homes

II. Village
 A. Composed of a clustered human settlement of hundreds to a few thousands. They have a local significance.
 B. Things you find in a Village
  1. Grocery Store
  2. Larger cluster of homes

III. Town
 A. Composed of a larger settlement that has thousands of residents. They have significance that is easily noticeable.
 B. Things you find in a Town
  1. Doctors
  2. Dentists (important services)

IV. City
 A. Composed of an even larger settlement in the tens and hundreds of thousands. They have significant impacts on surrounding landscape.
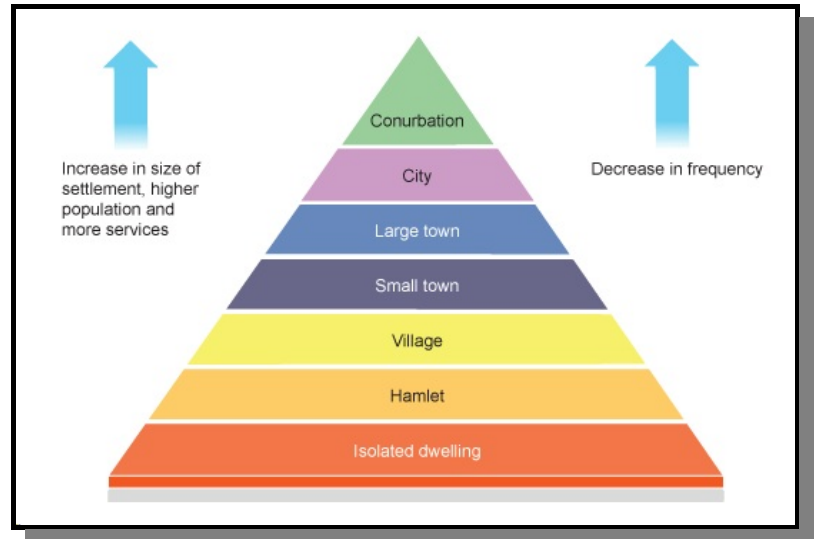 B. Things you find in a City
  1. specialized services

V. Metropolitan Area
 A. The surrounding landscape that a larger city influences heavily

VI. Megalopolis (Conurbation)
 A. Massive agglomeration of supercities

Central Place Theory

Central Place Theory is a spacial theory in urban geography developed by Walter Christaller in 1933. It attempts to explain the reasons behind the distribution patterns, size and number of cities and towns around the world. He represented this space with hexagons, because they eliminate overlaps and unused area.

Assumptions required for it to work:
1) An evenly distributed population, purchasing power and resources
2) All settlements are equidistant and exist in a triangular lattice pattern
3) An all flat surface with no barriers and with no variation in climate
4) Goods and services can be sold in all directions and transport costs are equal

It follows the Urban Hierarchy – Metropolis > City > Town > Village > Hamlet

Key Terms:
~ Sphere of Influence: region over which a state or organization has a significant influence on the culture, economy or politics
~ Central Place: a settlement that depends on the sale of goods and service to the people in the surrounding area
~ Threshold: the minimum number of people needed to support a central place
~ Range: the maximum distance a person will travel to purchase a good or service
~ Low order goods: Necessities (cheap products that are purchased frequently)
~ High order goods: Luxuries (not essential and are purchased infrequently)
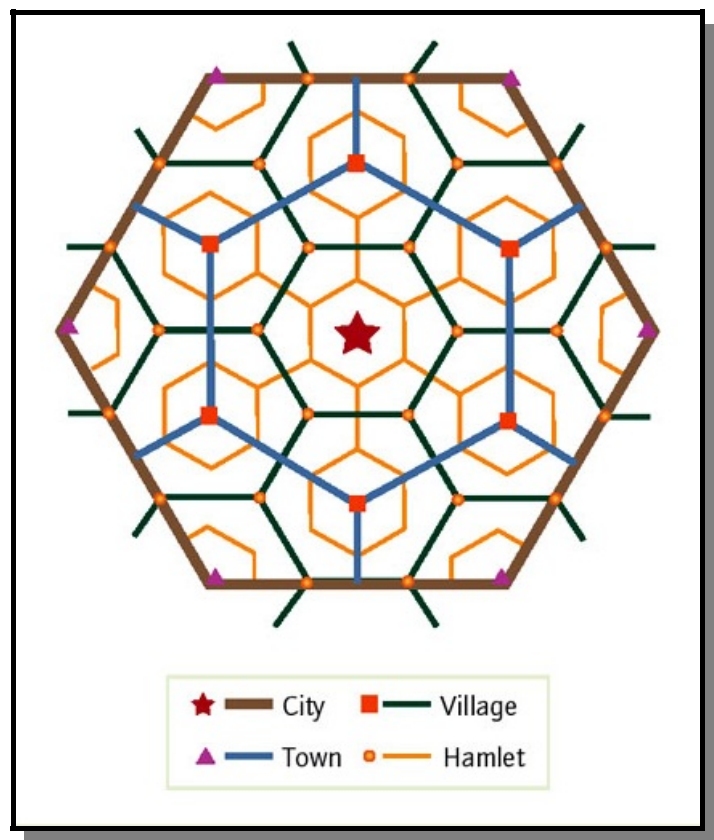
Some generalizations about the theory:
1) The larger settlements grow in size, the greater the distance between them
2) The larger the settlements are in size, the fewer in number there will be
3) As a settlement increases in size, the range and number of its functions will increase
4) As a settlement increases in size, the number of higher order services will increase

Primate Cities and Rank-Size Rule

Countries in
South America
with Primate Cities

Primate City

A primate city is a city that has a population more than two times as large as the second largest city.

Thailand's primate city of Bangkok is one of the most extreme examples. With 9,714,400 million people, Bangkok has more than 18 times as many people as Thailand's second largest city, Mueang Samut Prakan, and its 537,200 people.

Primate cities tend to:
~ Become economic, cultural and political
    centers
~ Attract factories, businesses and
    educational resources
~ Act as the capital, becoming the political
    and administrative center

Major Primate Cities

Athens, Greece	Djibouti City, Djibouti	Kabul, Afghanistan	Montevideo, Uruguay	Prague, Czech Republic
Baghdad, Iraq	Georgetown, Guyana	Lagos, Nigeria	Nairobi, Kenya	Santiago, Chile
Bogota, Colombia	Gran Asuncion, Paraguay	Lima, Peru	Paramaribo, Suriname	Seoul, South Korea
Buenos Aires, Argentina	Havana, Cuba	London, United Kingdom	Paris, France	Tallinn, Estonia
Cairo, Egpyt	Jakarta, Indonesia	Mexico City, Mexico	Port-au-Prince, Haiti	Vienna, Austria

Rank-Size Rule

The rank-size rule explains the sizes of cities in a country. A proportion of the largest city would represent the population of the second and subsequently smaller cities.

~ The proportion used is (1/n) where "n" is the numerical rank of the city size in the country
~ So, if the largest city has 1 million people, it would be expected that the second largest city
    had 500,000 (half), the third largest had 333,333 (one third) and so on.
~ Few countries fit rank-size rule, but New Zealand and the United States come closest

The United States largest city (not metro area) is New York (8,336,697), then Los Angeles (3,857,799), then Chicago (2,714,856), then Houston (2,160,821), as of 2010.

~ Megacity: A city with more than 10 million people
~ Metacity: A city with more than 20 million people

Ten Largest World Megacities, 2010
(in Millions of People)

City Models Outside North America

Griffin-Ford Latin American City Model

Created by Ernest Grffin and Larry Ford (1980)
~ Model Latin American cities in the periphery
~ Blends Concentric Zone and Sector models
~ Contains a central CBD split into traditional market area and a modern CBD
~ Commercial Spine extends from CBD and is surrounded by high-income residents
~ Mall is located at the end of the commercial spine and forms a node on the edge of city
~ Socioeconomic levels and housing greatly decrease with greater distance from CBD
~ Squatter settlements dominate the periphery
~ Shows the large differences between the spaces of privilege and poverty within the city
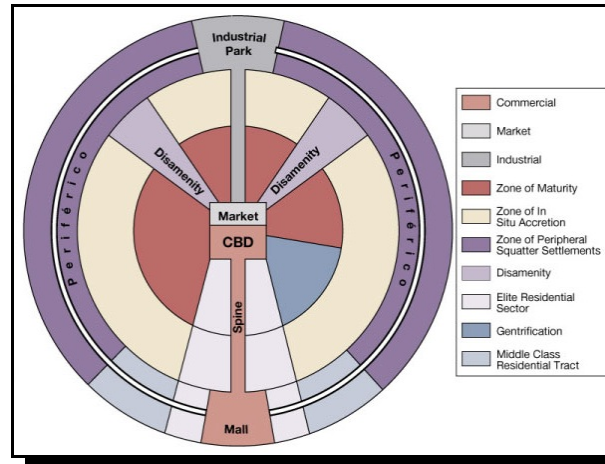
## De Blij Sub-Saharan African City Model

Created by Harm J. De Blij
~ Shows three CBDs (colonial, market and traditional) that reflect history of African cities
~ Colonial CBD is connected to surrounding area by planned transportation routes
~ CBDs are surrounded by ethnic neighborhoods
~ Mining and manufacturing jobs are located Far from the CBDs
~ Satellite townships composed of squatter settlements are located at the edge of the city
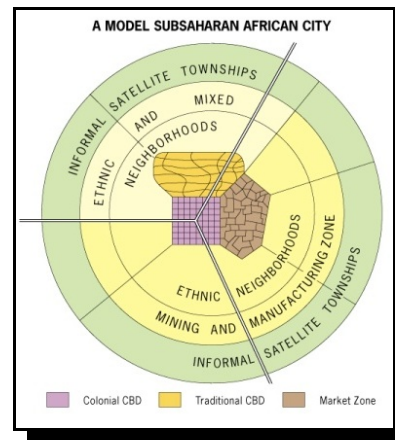
McGee Southeast Asian City Model

Created by T.G. McGee (1967)
~ Old colonial port zone and the commercial district around it form the focus of the city
~ No formal CBD, elements of CBD spread throughout the city in clusters such as alien commercial, Western commercial, mixed land use and government zones
~ New industrial sectors on outskirts of city
~ Includes middle-income housing in a suburban zone, reflecting the larger middle class in Southeast Asian cities
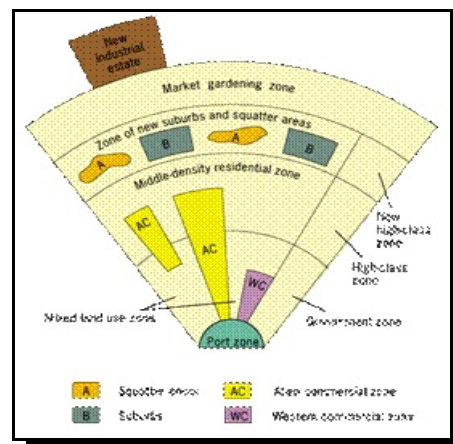
Urban Poverty Problems

Urban Poverty

Quite simply, urban poverty occurs when the population of an urban areas lives in poor conditions. Two of the regions where this is most prevalent are South Asia and Sub-Saharan Africa.

Some challenges faced by those in urban poverty:
~ Limited employment opportunities
~ Poor housing
~ Unsafe environments

Related terms:
~ Absolute poverty: living on less than $1 a day
~ Relative poverty: poor compared to others in your country
~ Land Tenure: the relationship that individuals and groups hold with respect to land and land-based resources, such as trees, minerals, pastures, and water

Land tenure has to do with property rights. When it is secure, it can be the cornerstone of investment, but when it is insecure, it can lead to conflicts and instability. Frequently, the ability to acquire land is not equal across race, ethnicity, and gender

Slums

~ Slums: lower socioeconomic settlements in urban areas

Types of slums:
~ Favela: slum community in Brazilian city
~ Shantytowns: unplanned slum development on the margins of cities, dominated by crude dwellings and shelters made from scrap materials
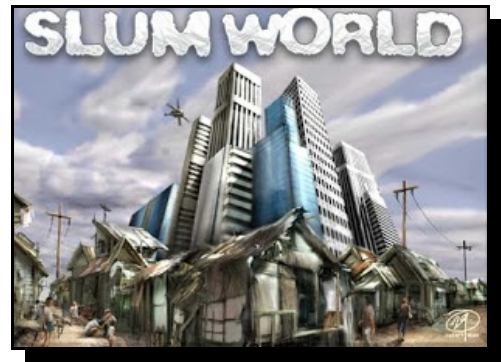
Squatter Settlements

~ Squatter settlement: An area within a city in a less developed country in which people illegally establish residences on land that they do not own or rent and erect homemade structures.

Typically located on the edge of large cities in less developed countries. Often they are populated by migrants who came to the urban city in search of work and had trouble finding jobs, ending up having to settle for squatter settlements. The settlements are very much like slums.

*Squatter settlements are illegal

16 Things to Understand About Unit 6 Purple

1) Suburbanization & Major causes in America

2) Urban Sprawl

3) Galactic city model (edge cities)

4) exurbs and boomburgs

5) redlining, blockbusting, environmental injustice

6) Other urban challenges: rise in crime, disamenity zones, zones of abandonment

7) gentrification positives and negatives

8) inclusionary zoning, greenbelts, brownfields

9) New Urbanism

10) slow-growth cities

11) positives of new urban designs

12) negatives of new urban designs

13) Sustainability challenges

14) Sustainability solutions

15) The problem for solving urban problems that multiple levels of government presents

16) Quantitative data can show us how a city is growing, but qualitative data shows us how people feel about its growth

Movement from the Center of Cities

SUBURBANIZATION

~ suburbanization: the growth of areas on the outskirts of an urban area (suburbs)

Main reasons for suburbanization:

1) Improvement of public transportation
2) Prefabricated homes in 1950s
3) Lower cost, more space
4) Infrastructure and public highways
5) Government support of house building with subsidies (GI Bill)

ADVANTAGES:
~ Homes are typically cheaper
~ Congestion less common
~ Less pollution, crime and transportation cost

DISADVANTAGES:
~ More segregated
~ Infrastructure can cost millions to create
~ Businesses leave city to move to where people of suburbs commute
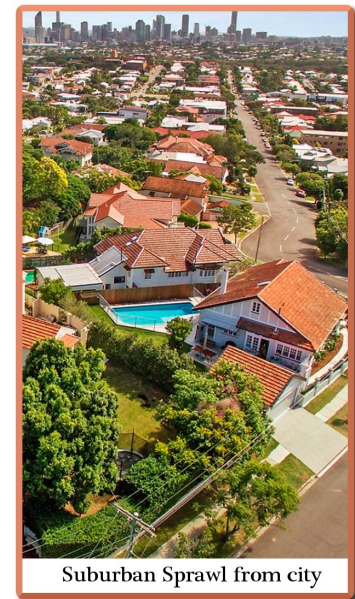
Suburban Sprawl from city

SPRAWL

~ Urban sprawl: rural acres lost as an urbanized area spreads outward over time
~ Leapfrog development: development that occurs well beyond the limits of the current urbanized area, jumping over tracks of undeveloped land, usually to take advantage of less expensive land

Developments and characteristics of sprawl:
~ Housing subdivision with large acres of newly built residences
~ Strip malls: shopping centers consisting of retail space
~ Fast food chains

DISADVANTAGES:

~ Negative environment and public health
~ Increased pollution and reliance on fossil fuel

** Leapfrog development is a huge problem for government services and infrastructure. Running electrical lines and sewage across open territory to get to developments can cause major problems, as well as police and fire services being stretched thin.

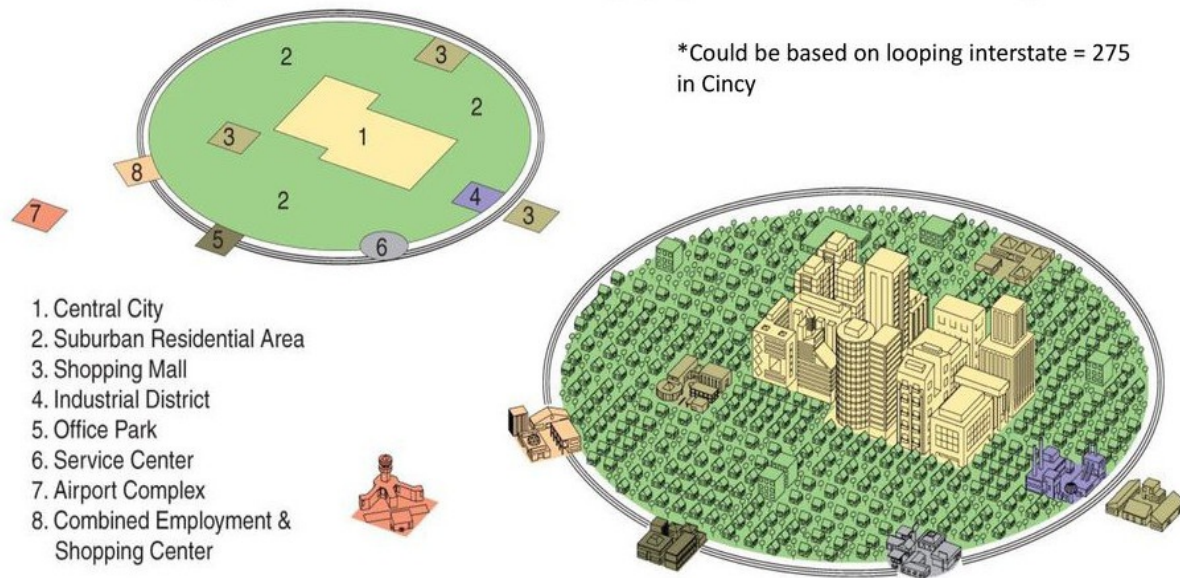~Infilling: The use of vacant land and property within a built-up area for further construction

Galactic City Model & Edge Cities

Galactic (Peripheral) City Model
- Developed by Chauncy Harris in the 1960's; modeled after the city of Detroit
- Increasingly decentralized CBD with empty space due to suburban migration

*Could be based on looping interstate = 275 in Cincy

1. Central City
2. Suburban Residential Area
3. Shopping Mall
4. Industrial District
5. Office Park
6. Service Center
7. Airport Complex
8. Combined Employment & Shopping Center

EDGE CITIES

~ Edge city: business, shopping and entertainment center located outside of a traditional city
~ Ring road: a bypass encircling a town; a beltway

5 Rules for an Edge City:

1) City must have more than five million square feet of office space; or an area to accommodate between 20,000 and 50,000 office workers

2) The city must have more than 600,000 square feet of retail space

3) It must be characterized by more jobs than bedrooms

4) It must be perceived by the population as one place

5) It must have had no urban characteristics 30 years earlier

~ Boomburg: a rapidly growing, sprawling city of 100,000 or more on the edge of a major metropolitan area
~ Exurb: a district outside a city, especially a prosperous area beyond the suburbs.

Redlining, Blockbusting, and Environmental Injustice

Sadly, America has not been perfect historically when it comes to race, and this certainly extends to housing options in America. Here are some of the worst of it.

~ Redlining: denying people of certain races/ethnicities loans within particular areas

The pattern to this one is pretty simple. The practice got it's name because banks literally took out maps of neighborhoods and circled areas that they would not be providing loans to. Sure, banks can make an argument that they have to invest in low-risk options, but there were far too many decisions on who was risky based on their race, especially in a era were most neighborhoods were segregated.

Loans   No Loans

Sadly, even though that era has of the literal red line has passed, figurative redlining is still around based on the wealth gap that was created in the first place.

Would you panic if a Negro moved next door?
"I'm broad-minded," said one home owner when Negroes moved into his block. But a short time later he panicked—and sold his house at a loss. In this week's Post, you'll read how speculators decide which blocks are "ripe" for racial change. How they use vicious tactics to force out the whites. And how one speculator brags that he could "bust" your block in no time at all.
POST
The Saturday Evening
July 14-21 issue.
A Curtis Magazine

~ Blockbusting: when realtors sell property to minorities, therefore encouraging racist whites in the neighborhood to sell their homes because the neighborhood was going "downhill" (the realtors overcharged blacks and bought cheap from fleeing whites)

~ White flight: the movement of whites from the city to the suburbs, often as minorities moved in

To the left we have a story from the Saturday Evening Post from 1962 entitled "Confessions of a Blockbuster" where an actual practitioner said he got rich "by beating down the prices I pay the white owners by stimulating their fear" and "by selling to the eager Negroes at inflated prices".

~ Environmental injustice: the lack of concern about environmental regulations in or even deliberate contamination of areas where ethnic and racial minorities and/or poor families live

This is a more modern equivalent. There is an acronym about where to put factories that pollute and potential nuclear plants called NIMBY (Not in my backyard). If you have more money, it is easier to make dangerous things stay away from your backyard, or to get contaminants cleaned up more quickly.

In addition, when buildings are unsafe environmentally or otherwise, the cost goes down. So, naturally, people with less financial options often end up next to dangerous things.

Urban Challenges

~ disamenity zones: The very poorest parts of cities that in extreme cases are not connected to regular city services and are controlled by gangs and drug lords.

       Disamenity zones (or sectors) are most often associated with major cities in LDCs, particularly in Latin America. Squatter settlements are generally ignored by the city proper (though the people living there have often found makeshift ways of obtaining their own electricity and running water).

       Slums are notorious for having disamenity zones, and the United Nations defines slums as having lacking five specific amenities:

1) Permanent housing
2) Sufficient space
3) Clean water
4) Sanitation
5) Personal safety

       Personal safety basically equates with crime rates. The more closely you pack people together, the more likely it is that crime rates increase. Caracas, Venezuela has the worst crime index in the world with 85.26 major crimes per 100,000 people.

~ zones of abandonment – areas that have been deserted in a city for economic or environmental reasons

Sept. 2009

Sept. 2013

Abandoned areas occur for too very different reasons. Above, we have the Detroit neighborhood of Ravendale, which has seen entire streets abandoned for economic reasons.

On the right is a bumper car ride from Pripyat, Ukraine, which was abandoned in the wake of the Chernobyl accident.

Gentrification and Urban Revitalization

Urban Revitalization

Urban revitalization is an attempt to get people to return to the city. Gentrification is considered just one facet of urban revitalization.

Typically accompanied by:
- ~ blight removal
- ~ new shopping centers
- ~ cultural attractions

ADVANTAGES:
- ~ Draws people, creating a community
- ~ Creates jobs, the city looks cleaner

DISADVANTAGES:
- ~ Costs tons of money to rebuild
- ~ Squatters can be displaced

2012   Cincinnati's Over the Rhine District   2016

~ **Gentrification**: the rehabilitation of deteriorated, often abandoned, housing of low-income, inner-city residents

ADVANTAGES:
- ~ Attracts more residents, especially when close to downtown
- ~ Restores culture of the area
- ~ Neighborhood rejuvinated

DISADVANTAGES:
- ~ Some to tear downs for quick profits
- ~ Displaces lower income residents, and increases housing costs

* The big thing to note is that gentrification is very controversial in some circles. Some groups claim that it is class warfare and/or racism, forcing poorer families out of their homes, and it draws it's fair share of protests.


To the right is a protest of the gentrification of East Harlem, often called Spanish Harlem or El Barrio (which is Spanish for the Neighborhood).

The concern of local residents of ethnic minorities is that when the middle class arrives, Starbucks, Chipolte, and other trendy places arrive with them, putting local establishments out of business and destroying the cultural history.

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Smart-growth Strategies

~ **inclusionary zoning**: housing policy that requires a certain percentage of more affordable housing to be included in any new construction of high-end housing

~ **below market rate**: cheaper than the value something would have if left to free enterprise

~ **area median income**: not the average income of the district, but a number representing what the people make who are better off than half the area's people and worse off than half
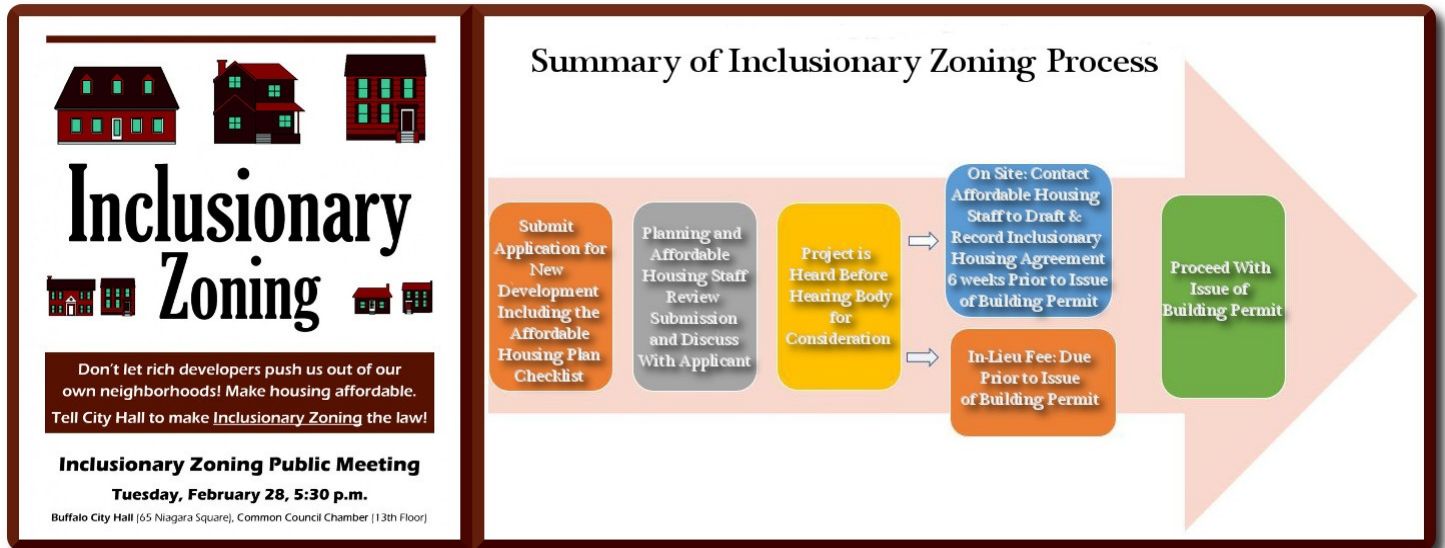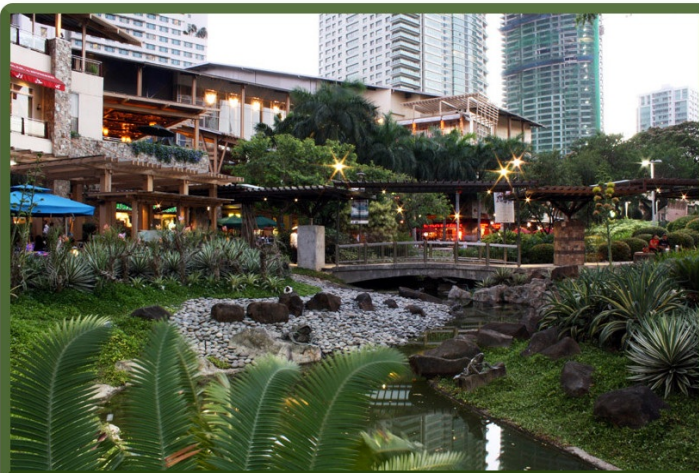

ADVANTAGES:

~ Forces contractors to provide some housing below market based on some percentage of the area median income
~ Keeps the area more diverse

DISADVANTAGES:

~ Who gets the below market housing has to be determined by lottery
~ Does not solve the gentrification problem of protection of minority culture in an area

Greenbelts and Brownfields

Greenbelt

A ring of land maintained as parks, agriculture, or other types of open space to limit the sprawl of an urban area.

Brownfield

Abandoned areas that have the potential to have toxic or harmful pollutants in them such as former gas stations.

New Urbanism

~ new urbanism – a counter to urban sprawl; development, urban revitalization, and suburban reforms that create walkable neighborhoods with a diversity of housing and jobs.

New urbanism is logical. It is a way to develop cities such that they are easy to get around in, connected by mass transit, and less wasteful. The question becomes, how exactly do you transition to that? In a place like Los Angeles, for example, urban sprawl defines the city, but that sprawl also is a result of continuous individual choice. It is hard to convince everyone in a city like Los Angeles to suddenly change choices.

In America, that is hard to picture, but it is not America that is taking the lead in New Urbanism – it's China. With greater control over their population's choices, China has systematically begun to build some cities, like the Zhengdong New Area in the Zhengzhou District of the Henan province, under seven principles of New Urbanism:

1) Preserve

When building it is essential to take care of the natural ecology, the agricultural landscapes, and the cultural heritage of an area.

2) Mix

The most common interpretation of mix is mixed-use development (having shopping and residential areas together). However, the principle also means having mixed age groups and mixed income brackets, giving a greater feel of a unified culture.

3) Walk

The area where people live, each neighborhood, should be walkable, instead of having great distances between home, shopping, and activity. There should be places worth walking around in.

4) Bike

Bicycles are the most efficient mode of transportation on earth, and should be encouraged.

5) Connect

Limit block sizes so that people have the ability to know their neighbors. Increase the density and diversity of road networks so that people can get from place to place, walking, biking, by mass transit, or by other means, with different paths set aside for each.

6) Ride

Develop high quality mass transit that connects different parts of the city together at hubs.

7) Focus

Match density and mix to transit capacity. Plan well and cities become more functional.

Potential Positives and Negatives of New Urban Designs

~ slow-growth cities:

     (1) urban communities where the planners have put into place smart-growth initiatives to reduce urban sprawl and help a city growth more vertically and less horizontally

     (2) a city that naturally is seeing only incremental increase in population and therefore has issues with deteriorating infrastructure and lack of investment

Typically, when the term comes up in this course, they are looking for the first definition – initiatives, like new urbanism, designed to cut down on urban sprawl. However, cities like Winnipeg, Canada, which has been seeing slow-growth naturally over a sustained period of time, have their own problems.

Most modern initiatives are designed to deal with rapid growth. A city only growing marginally will see a decrease in investment, and if this continues, could suddenly become a city in decline like Detroit or Baltimore.

There are many types of new urban design. When done to the seven ideals of new urbanism, it can be a great benefit. Not everyone government is striving for those ideals, though. Not every citizen, especially in America, is willing to give up the ability to drive their car anywhere.

These are not easy questions.

When it goes right people get:

1) Reduction in Sprawl

2) Improved transportation and walkability

3) Better and more diverse housing

4) Improved livability

5) Promotion of sustainable options

When it goes wrong people get:

1) Increased housing costs

2) Loss of historical and cultural character

3) De Facto segregation

Sustainability Challenges and Solutions

<div style="color:red">Challenges to Sustainability</div>

1) Suburban sprawl

Endless stretching out is extremely taxing on the infrastructure.

2) Sanitation

The closer people are living together, the easier it is spread disease quickly. The ability to keep things clean is a major issue. (UN Sustainable Development Goal #6)

3) Climate change

There is the global element of this, and the heat islands created in cities. (#13)

4) Air and water quality

Curbing pollution is key in cities.

5) Ecological footprint of cities

Cities use resources, the bigger the city, the more the necessary resources. (#15)

6) Energy use

Using renewable energy is a problem everywhere, especially when some places still don't have electricity. (#7)

<div style="color:blue">Solutions for Sustainability</div>

1) Regional planning efforts

Large cities cannot operate in a vacuum. The same could be said for individual states (countries). Everyone's decisions have effect on people nearby, and there has to be large-view planning.

2) Remediation/redevelopment of brownfields

Most brownfields are in prime downtown and waterfront properties. While it is much more expensive to have to clean a land before just building on it, we have the technology to do that, and it is good for society as a whole,

3) Urban growth boundaries

Set a ring that is the limit to where development is allowed is one solution to random sprawl enforced by local zoning boards.

4) Farmland protection policies

These are initiatives designed to slow down the conversion of agricultural land into land used for other purposes.

Urban Problems Across Government Levels

Fragmentation refers to those circumstances in which more than one level of government is involved in the same broad area of need and opportunities exist to improve service delivery.
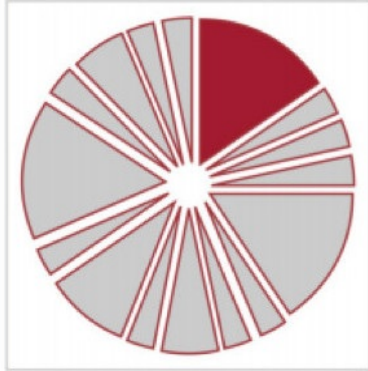
Overlap occurs when multiple levels of government have similar goals, engage in similar activities or strategies to achieve them, or target similar beneficiaries.
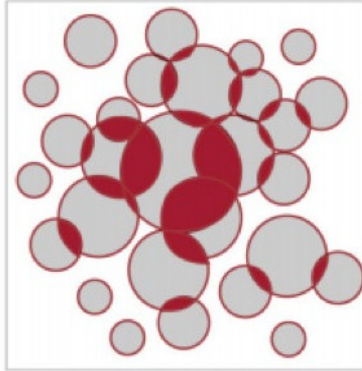
Duplication occurs when two or more levels of government are engaged in the same activities or provide the same services to the same beneficiaries.
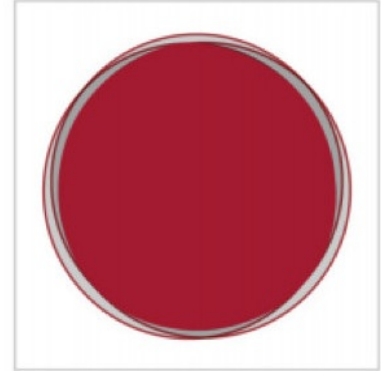
In the United States, for example, government power is divided among the federal government, states, counties, cities, and even neighborhoods, and even by multiple agencies at most of those levels. The more groups that you have that have a say in decisions, the more difficult it can be to get on the same page in those decisions. Trying to complete rework large American cities, obviously, is going to run into fragmentation, overlap, and duplication fairly frequently.

Quantitative vs. Qualitative City Analysis

Much of the work of new urban design is based on analysis of hard numbers – quantitative data.

The census can tell us which cities are growing, which parts of the city are growing, what is the average income level in different areas, where unemployment is high, where it is low, what percentage of a world's cities have electricity and so forth.

From a number analysis stand point, it is obvious that our cities in America are designed too much for cars and too little for connected mass transit, so new urban designs account for that.

However, strict numbers to not analyze what it feels like to live somewhere. It may be more practical for city design, but how many Americans are willing to give up their car?

This is why it is essential for cities to also use qualitative data like field studies and personal narratives to access how the citizens actually perceive their city before, during and after changes.

DEVELOPING PITTSBURGH

What does change in your neighborhood or business district feel like? What would successful urban design look like? **How do you envision the Pittsburgh area 5, 10, 20 years from now?**

16 Things to Understand About Unit 7 Gold

1) HDI: How we measure development

2) MDCs and LDCs

3) GDP, GNI per capita, literacy rate

4) Other measures: fertility rates, access to healthcare, use of fossil fuels, renewable energy use

5) Gender Inequality Index

6) Wage and employment disparity (lack of equity)

7) As countries develop, the roles of women change

8) Microloans

9) The Industrial Revolution (UK and natural resources)

10) Results of Industrial Revolution (increased food, growth in population, migration to city, and changes in class structure)

11) Weber's Least Cost Theory; Hotelling Effect (Nash Equilibrium)

12) Transportation & Break of Bulk Point

13) Rostow's Stages of Economic Growth

14) Wallerstein's World System's Theory; dependency theory

15) Commodity dependence

16) Absolute, Comparative, and Complementary advantage

Measuring Development (HDI)

There are many things that are used to measure the relative levels of developments of different countries, but the most accepted version is the Human Development Index (HDI) created by the Pakastani economist Mahbub ul Haq and administered by the United Nations.

Human Development Index
The goal of the HDI is to create a number between 0.0 and 1.0 by combining three things:
1) Demographic data
- ~ Measured by average life expectancy
- ~ Life expectancy is ranged between 20 and 82.3, then equalized to 1.0 scale
- ~ Was originally range of 20 to 85 until 2010

2) Economic data
- ~ Measured by Gross National Income per capita
- ~ GNIpc is ranged from $100 to $107,721, then equalized to 1.0 scale
- ~ GDP was originally used instead of GNIpc until 2010

3) Social data
- ~ Measured by combining mean years of schooling (MYS) for those done and expected years of schooling (EYS) for those in school
- ~ MYS counts twice as much as EYS, and they are equalized to 1.0 scale
- ~ Originally the social was 2/3 literacy rate & 1/3 education level
    - ~ This was ideal because literacy is quality of education not quantity
    - ~ Literacy removed largely because the statistics were inaccurate

FINAL PHASE: The demographic, economic and social elements are averaged

Map of World's HDI ranging from extremely high (over 0.90) to very low (between 0.20 and 0.30)
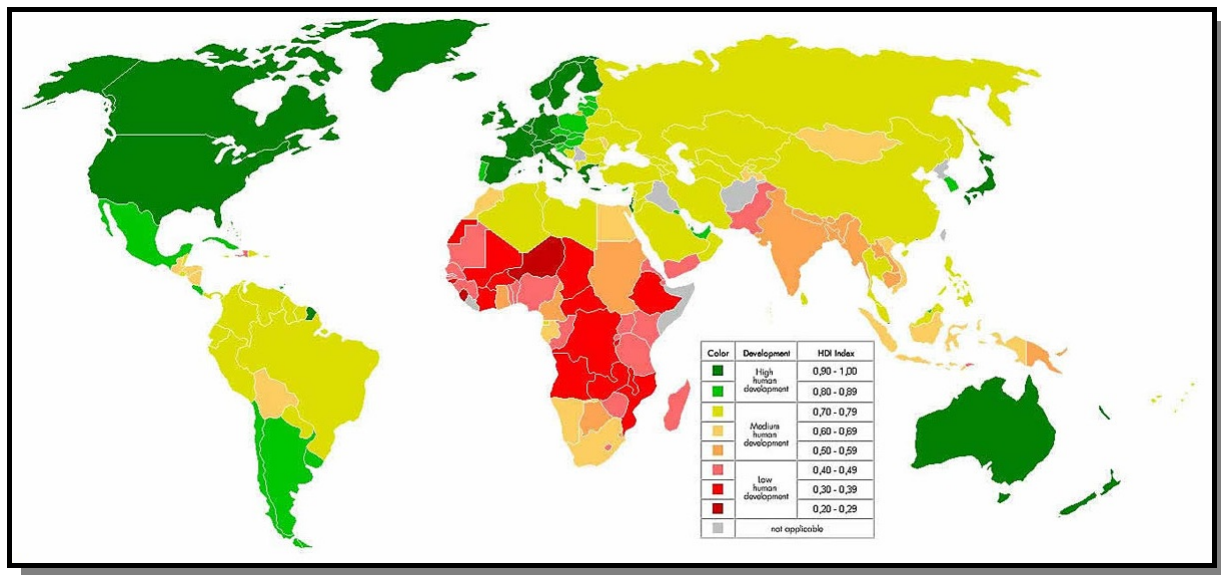
KEY TERMS:
- ~ More Developed Country (MDC): a country that has progressed relatively far when it comes to development, typically having an HDI above 0.80 (also called developed countries)
- ~ Less Developed Country (LDC) – a country that is a relatively early stage in the process of economic development, broadly those with an HDI less than 0.80 (also called developing countries)

Other Measures of Development

~ Formal sector of the economy: the jobs and the employees working them that are recognized income sources and thus lead to taxes and tracking as part of a country's GDP

~Informal sector of the economy: it encompasses all jobs which are not recognized as normal income sources for which taxes are not paid, which are not tracked as part of a country's GDP

Fertility Rates

As we talked about earlier, the most common fertility rate used is the Total Fertility Rate, which measures how many children are born on average to each adult female. A country needs a TFR of 2.1 to maintain population without migration.

From a comparison standpoint, LDCs tend to have higher TFR's than MDCs.

Infant Mortality Rates

The higher the infant mortality rate, the more likely it is for a country to be an LDC. As countries develop, their medical care generally improves.

Access to Healthcare

The World Health Organization (WHO) has a complex series of analyses designed to indicate which people have full coverage of their essential health services. By their estimation, somewhere between 2.3 and 3.5 billion people receive the essential health services they need, which means at minimum, 3.8 billion of the 7.3 billion people in the world do not.

Examples that they cite include more than a billion people living with untreated hypertension. Not surprisingly, better access to healthcare is a sign of an MDC.

Energy Use

There are indexes that measure the amount of fossil fuel production and consumption, and others that measure the renewable energy use. It's not as straightforward an MDC/LDC on this one. Renewable energy use often is a sign of an MDC, but fossil fuel use is not as clear, as countries have to develop to a certain extent before they are using much energy at all on a global scale.

Gender Inequality

~ Gender Inequality Index (GII): an index for measurement of gender disparity created by the UN in 2010, that measures the inequality in a country between men and women by looking at reproductive health, empowerment, and labor market participation

GII provides numbers on a scale from 0 to 1, just like HDI. However, opposite of HDI, a lower score is better. A score of 0 would indicate men and women are equal, while a score of 1 would indicate they are as far from equal as possible. Here's what it looks at in more detail:

1) Reproductive health
> The GII looks at two statistics here – the Maternal Mortality Ratio (MMR) and the adolescent fertility rate (AFR). A low MMR would indicate that pregnant women are getting their health care needs met. Meanwhile, a low AFR would mean that less women are getting pregnant as teens which has higher health risks and also indicates that women has access to more education.

2) Empowerment
> Again, the GII looks at two things. First, it looks at the percentage of parliamentary seats held by each sex (for the United States that would mean Congress). Second, it looks at women's higher education levels (secondary education and above).

3) Labor Market Participation
> This is measured by looking at women's participation in the workforce

*In 2017, Switzerland had the best GII in the world at 0.039. Of the 160 countries with obtainable data, Yemen had the worst at 0.834. The United States was 41st at 0.189

Gender Wage Gap

One of the things that is most looked at between men and women is the difference between how much each sex is paid. This is usually given as what percentage the average full-time female worker in a country's salary is of the average full-time male worker's salary is. In the U.S., women's salary's are 81.1% of men's. There are no countries where women are paid the same as men.

Fixing Gender Inequality

The United Nations thinks that correction gender inequality is so important that they made it No, 5 on their 19 goals for sustainable development:

What the U.N. understands is that as countries improve economically, the roles the women play in society change dramatically.

~ Microloans: The extension of very small loans to impoverished borrowers who typically lack collateral, steady employment and a verifiable credit history; they are designed not only to support entrepreneurship and alleviate poverty, but also in many cases to empower women and uplift entire communities by extension

Microloans is a concept started by Bengali professor Muhammad Yunus in 1974 in Bangladesh after talking to a poor woman named Sufiya Begum. Begum, who like many women in her village crafted bamboo stools, could only borrow money for supplies from what amounted to the local loan shark because she had no credit. That loan shark made her sell all her stools to him at such a discounted rate that she only sunk further into poverty.

Yumus decided to loan Begum and 42 other women the money they needed out of his own pocket (it came out to about $27 each) with no stipulations on where they could sell their stools. They all paid him back within a week, and he was inspired to start the Grameen bank, which specialized in these microloans. Yunus believed that, given the chance, the poor will repay the money and so it was a viable business model.

He was right. Grameen has been very successful. Over 90% of the borrowers are women, and over 68% of the families of their borrowers have crosses the poverty line.

The Industrial Revolution

Characteristics	1st industrial revolution	2nd industrial revolution
When	The late 18th and 19th centuries	the second half of the 19th century and the early 20th century
Where	in Great Britain	USA, Germany and Japan
Energy	Coal	Petroleum and hydroelectric power
Machines	The Steam engine	The internal combustion engine
Means of transport	The railway	Automobile, electric trains and trams, aircrafts
Working system	Workers, paid by salary, and machines, were brought together in a central factory under the same roof	The Ford production system

Results of the Industrial Revolution

1) increased food

As mentioned in the agricultural section, the industrial revolution went back and forth with the Second Agricultural Revolution. Farm equipment like the seed drill increased agriculture production and made it possible to feed more people worldwide.

British Industrial Revolution Advantages

Natural Resources
a) Water
b) Coal
c) Iron Ore
d) Rivers
e) Harbors

2) growth in population

The ability to produce more food more quickly invariably leads to an increase in population. From 1CE to 1750 CE experts estimate that the world population went from 190 million to 720 million, an increase of 530 million over 1750 years. Those same experts say that in the 150 years of the industrial revolution, population went from 720 million to 1.625 billion, an increase of 905 million.

3) migration to city

With the switch from a mostly agrarian society to a manufacturing based culture, the focus of countries shifted from the rural countryside to the city. People flocked to major cities.

4) changes in class structure

The industrial revolution led to the rise of the middle class, which enjoyed some prosperity and great wealth for the upper class on the backs of the lower classes. This eventually led to movements for social justice for women, the poor, and child laborers.
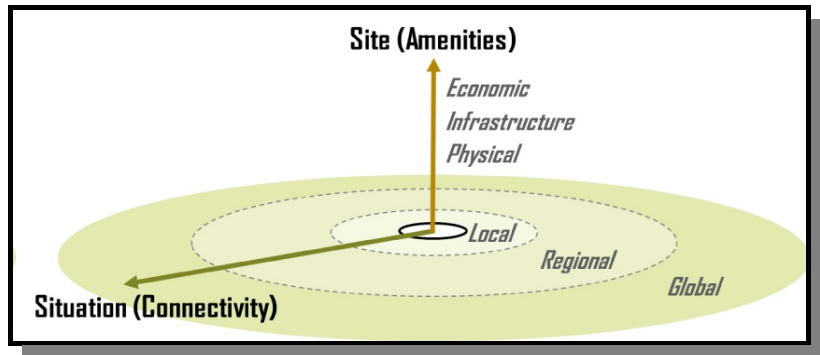
Industrial Location Theories

There are many theories as to where industries will be located, but let's start this by returning to the main two types of cost factors for an industry: site factors and situation factors.

~ Site factors: land, labor and capital. These are the unique costs of locating in a place.

~ Situation factors: has to do with the cost of transporting raw materials to the factory and the finished product to the market.

Alfred Weber – Least Cost Theory

Three factors determine where industries are located
      1) Transportation costs (Most Important)
      2) Labor availability
      3) Agglomeration (the clustering of industries)

Transportation costs depend greatly on weight of material
      Bulk-reducing industry
            The end product weighs less than the raw materials
            Factory closer to the raw materials than market
            Example: Steel
      Bulk-gaining industry
             The end product weighs more than the raw materials
            Factory closer to the market than raw materials
   Example: Soda bottling

Harold Hotelling - Local Independence

Hotelling was discussing linear markets (a market that exists in a straight line like a street), like the linear beach in the graphic to the right.
    If two ice cream carts are going to each get half the business of a beach, the ideal locations for them is where they are in the graphic, at points A and C. This is ideal because they each get half the customers and no one has to walk farther than 1/4 the length of the beach.

Hotelling's theory states they will no stay there, though, for one simple reason, either cart can move toward the center of the beach and steal some of the customers from the other cart. Therefore, they will wind up back to back in the middle in a Nash Equilibrium, each serving half the customers, some from a far greater distance, but with no ability to gain more customers by moving.
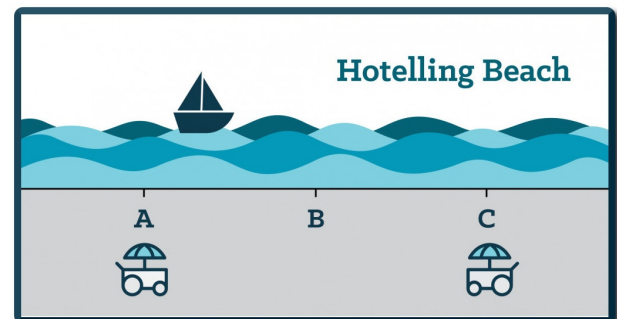
Transportation Modes

Trucks - Often used for in country shipping

PROS
- ~ More freedom of destination
- ~ High speed
- ~ Very common mode of transportation
- ~ Used to ship to and from airports/ports

CONS
- ~ High fuel costs
- ~ High pollution
- ~ Only land transportation
- ~ Least amount of cargo per vehicle

Boats - Used for long trips over water

PROS
- ~ Can carry vary high amounts of cargo
- ~ Can make long trips
- ~ No set route
- ~ Can travel on water

CONS
- ~ Can't ship over land
- ~ Very slow
- ~ Pollution
- ~ Expensive to maintain

Trains - Used to move large cargo over land

PROS
- ~ Carries very high amounts of cargo
- ~ Fast long distance transportation
- ~ Cheapest cost of fuel

CONS
- ~ Requires rails
- ~ Very high maintenance costs
- ~ Pollution
- ~ Only land

Planes - Used for long distance at high speed

PROS
- ~ Fastest transportation mode
- ~ Travels over land and water
- ~ Can carry large amounts of cargo

CONS
- ~ Expensive maintenance and fuel
- ~ Pollution
- ~ Requires airports
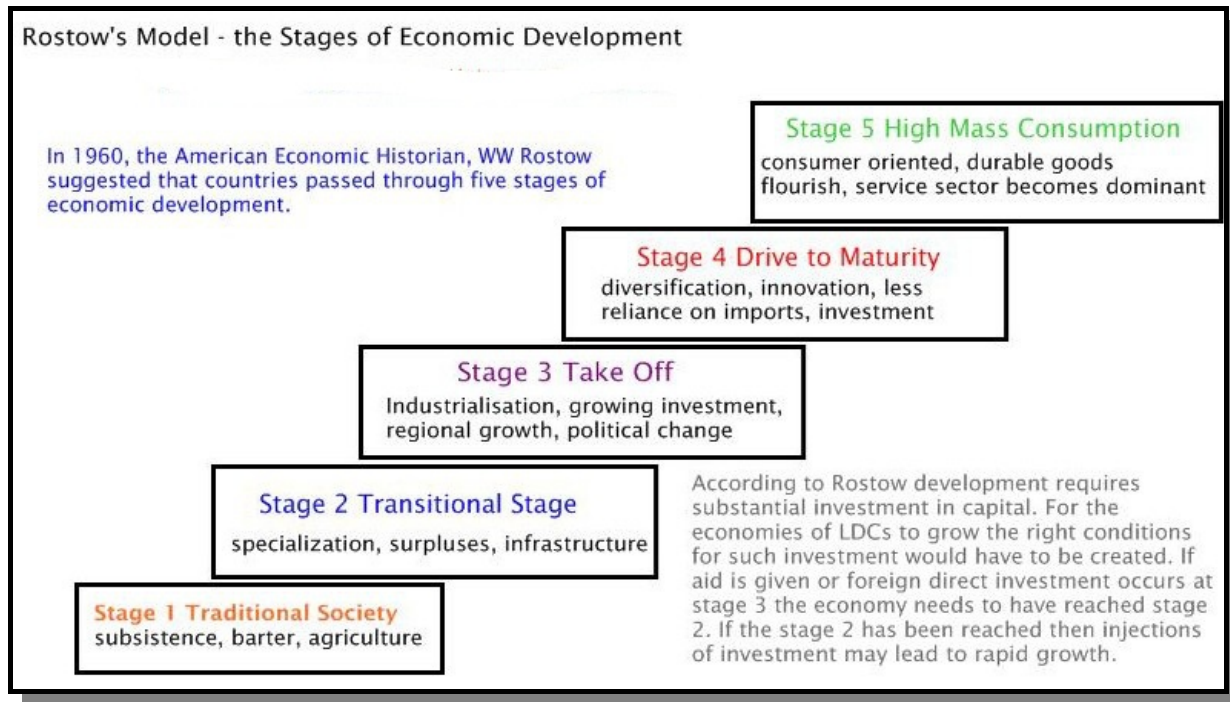- ~ Need more educated workforce

~ Break of Bulk Point: a place where cargo is shifted from one form of transport to another.

Rostow's Stages of Development

W.W. Rostow was a American Economic Historian who proposed that all countries go through a series of five levels of development in the areas of literacy, communications and productivity per worker.

Rostow not only posited that all countries were on this spectrum now, he also suggested that you could go back into a country's history and see when they had gone through the earlier stages to get where they are today.

His theory is sometimes called the ladder of development..

Rostow's Model - the Stages of Economic Development

In 1960, the American Economic Historian, WW Rostow suggested that countries passed through five stages of economic development.

Stage 5 High Mass Consumption
consumer oriented, durable goods flourish, service sector becomes dominant

Stage 4 Drive to Maturity
diversification, innovation, less reliance on imports, investment

Stage 3 Take Off
Industrialisation, growing investment, regional growth, political change

Stage 2 Transitional Stage
specialization, surpluses, infrastructure

Stage 1 Traditional Society
subsistence, barter, agriculture

According to Rostow development requires substantial investment in capital. For the economies of LDCs to grow the right conditions for such investment would have to be created. If aid is given or foreign direct investment occurs at stage 3 the economy needs to have reached stage 2. If the stage 2 has been reached then injections of investment may lead to rapid growth.

The graphic above shows an example of the Rostow model. However, Rostow has not proven exceedingly accurate through the years, and most geographers discount it.

A few countries have followed the model loosely – the United States, New Zealand, Japan and Australia, as well as some European nations.

On the right is a look at which sector of the economy people would be in at each stage of the Rostow model.

Since most would be in the tertiary sector by Stage 5, there may be problems with food supply.

	Primary Sector	Secondary Sector	Tertiary Sector
The Traditional Society	Vast Majority	Very Few	Very Few
Pre-conditions for Take Off	Vast Majority	Few	Very Few
Take Off	Declining	Rapid Growth	Few
The Drive to Maturity	Few	Stable	Growing Rapidly
High Mass Consumption	Very Few	Declining	Vast Majority

Wallerstein's World Systems Theory, Dependency Theory

Immanuel Wallerstein's World Systems Theory is first mentioned on pg. 35, but unlike Rostow's Five Stages of Development, this theory is still much accepted and used, so let's give it a little more depth.


CORE|SEMI-PERIPHERY|PERIPHERY
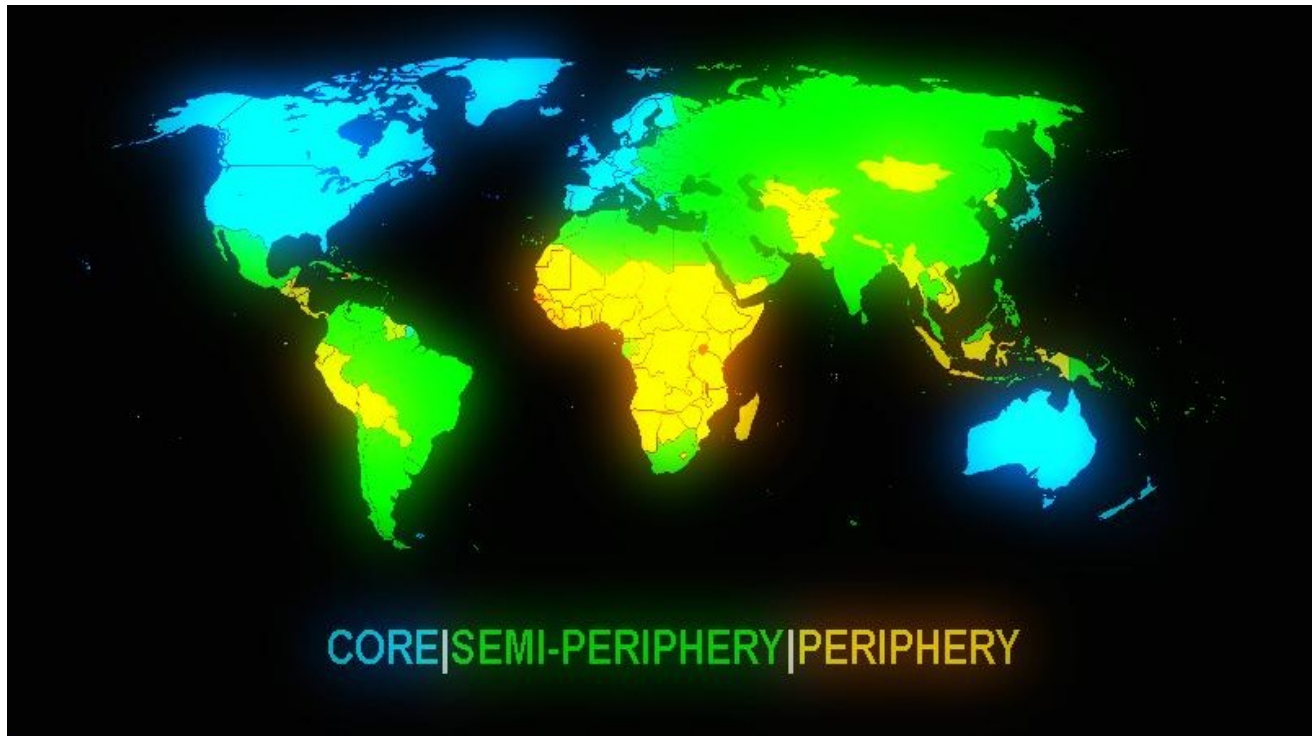
The 3 Basic Rules:

1) The world has one market and a global division of labor
   ~ The world economy is capitalist
   ~ To generate a profit, producers seek the cheapest labor
2) Despite multiple world states, everything takes place within context of world economy
   ~ Colonialism set up with independent states and interdependent global economy
   ~ The economies of the world are tied together creating intended and unintended consequences that fundamentally change places
3) The world economy has a three-tier structure: the core, periphery and semi-periphery
   ~ Core: high education, high salaries and more technology
   ~ Periphery: low education, low salaries and less technology (kept in poverty by core countries lack of investment in them)
   ~ Semi-periphery: in between, exploited by the core, but exploits the periphery

   ~ The basic premise is that all three levels are necessary and that the periphery countries are not all destined to grow to being core countries as all levels are necessary

** The World Systems Theory is related to the dependency theory, that states that the powerful countries control the economic development of less powerful areas. As a result, there is little hope for economic development of less powerful areas.

Movement in Core-Periphery Model

Japan set the model for moving up from a peripheral country to a core country. After being devastated in World War II, Japan focused on electronics to rebuild its economy. Companies like Sony made high quality goods that they sold cheaply in the U.S. market. Because of their quality, this built up demand, and the price of the goods and importance of the companies increased.

The Four Asian Dragons/Tigers
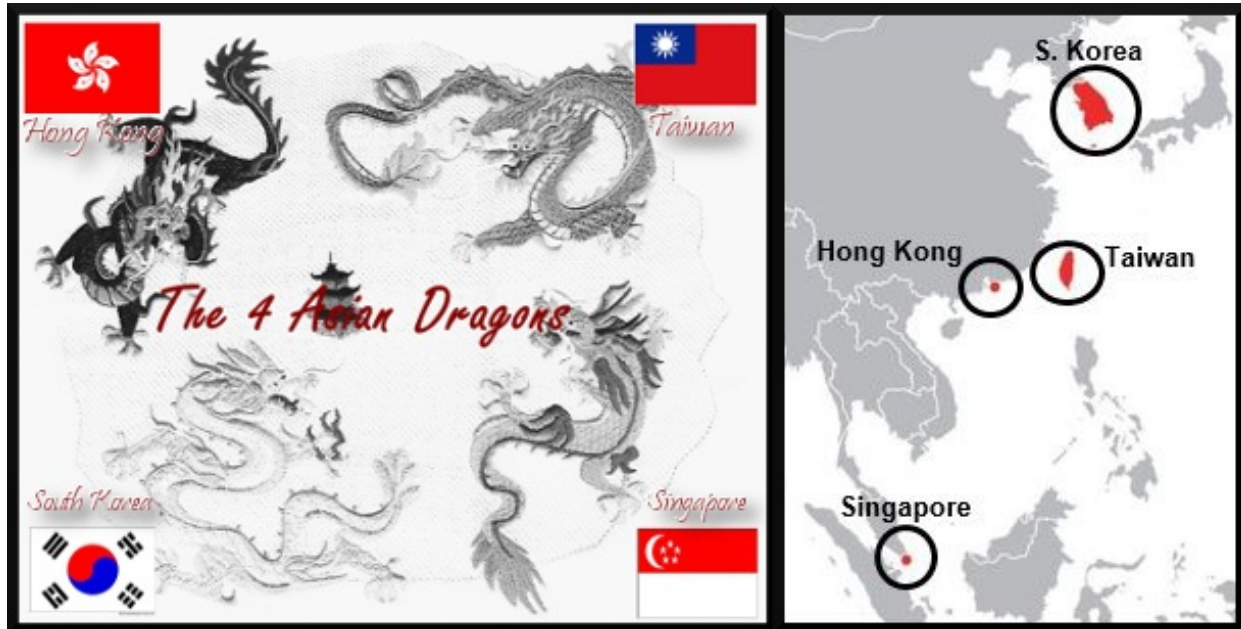
Four Asian Tigers (Dragons)

~ All of these places have a great work force, meaning they are trained or educated
~ Every single country has very high consistent populations
~ All of these areas also have cities which developed industries on a wide scale
~ Industries consist of a wide range of things like clothes up to electronics
~ South Korea and Singapore are now considered part of the core

Four Little Tigers
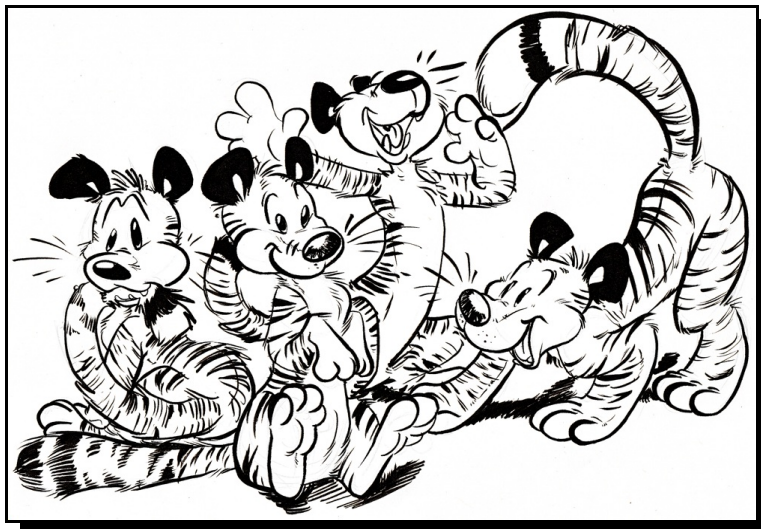
Malaysia
Vietnam
Indonesia
The Philippines

~ Following in the footsteps of Asian Tigers
~ All members of ASEAN
~ Concentrating on same industries that worked for the Asian Tigers

Advantages in Trade

~ Primary commodities: material in a raw or unprocessed state, such an ore and fresh fruit
~ Commodity dependence: Reliance on primary commodities for a high percentage of a country's
        export revenues.

Commodity dependence is usually measured by one of the following:
        1) the share of export earnings of the top single commodity (or top three export
                commodities) in GDP, in total merchandise exports, and in total agriculture exports
        2) the percentage of people engaged in commodity production
        3) the share in government revenue

**Of the bottom 141 LDCs in the world in 2008, 95 depended on primary commodities for at least
half of their export earnings, which marks a huge disadvantage in world trade. Because of this,
sudden price fluctuations have a direct influence on amount of people in poverty in those countries.

Absolute, Comparative, and Complementary Advantages

~ absolute advantage: the ability of a country to produce more of a good than another country
~ opportunity cost (OC): the amount that has to be given up for all alternatives not chosen; in
        economics if one has a choice between producing A and B, and one chooses to produce A,
        the OC is how much of product B they could have produced in the same amount of time
~ comparative advantage: the ability of a country to produce a product with less of an opportunity
        cost than another country

The countries of Kalos and Johto can produce two goods: shiny charms and berries. The table below describes the production possibilities of each country in a day.

	charms	OC	berries	OC
Kalos	10	$2\ \frac{berries}{charm}$	20	$\frac{1}{2}\ \frac{charms}{berry}$
Johto	25	$3\ \frac{berries}{charm}$	75	$\frac{1}{3}\ \frac{charms}{berry}$

    The chart above is demonstrating how to look at absolute advantages, opportunity costs and
comparative advantages. Because Johto can produce more charms and more berries than Kalos, it
has an absolute advantage in both. However, Johto still has to decided what to produce. It does this
by looking at its opportunity costs (OCs).
    Because Johto can produce three berries every time it makes a charm, its OC for producing a
charm is three berries. Therefore, its OC for producing a berry is one third of a charm.
    Meanwhile, Kalos can produce two berries every time it makes a charm, so its OC for
producing a charm is two berries, and its OC for producing a berry is one half of a charm.
    Because Johto is only giving up one third of a charm every time it produces a berry and
Kalos is giving up half a charm, Johto has the comparative advantage in producing berries.
Similarly, Kalos gives up less to produce charms (2 to 3). Since Johto and Kalos each have a
comparative advantage, they gain a complementary advantage in trading with each other.
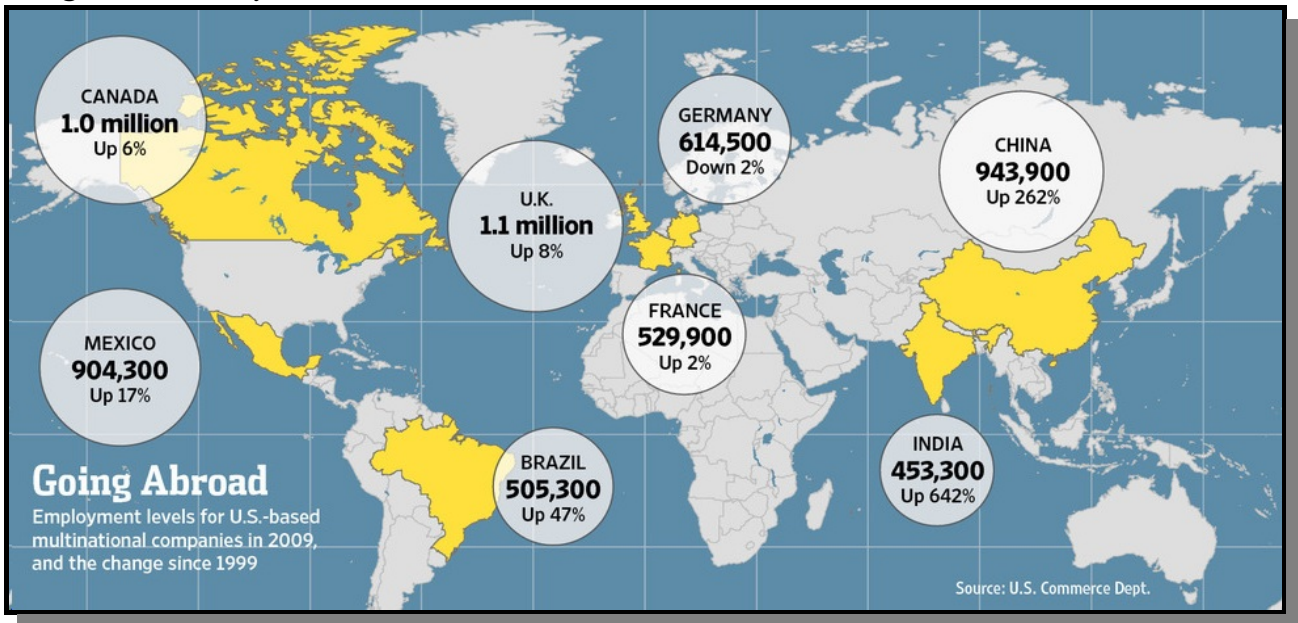
16 Things to Understand About Unit 7 Purple

1) Global economy; international division of labor

2) Outsourcing; offshoring

3) International Monetary Fund

4) Global financial crisis (debt crisis)

5) Tariffs

6) SEZs, EPZs, free trade zones

7) Free Trade Agreements (EU, Mercosur)

8) OPEC and the World Trade Organization

9) Fordism vs. post Fordism

10) Just-in-time delivery

11) Agglomeration and high tech corridors

12) growth poles and multiplier effects

13) rise of service sector

14) Dealing with sustainability problems (mass consumption, pollution, climate change)

15) Ecotourism

16) UN Sustainable Development Goals

Multinational Corporation

Key Terms:

~ Multinational Corporation (MNC): owner of offices and/or production facilities in one or more countries other than its country of origin (Coca Cola, Toyota, McDonald's)

~ Transnational Corporation (TNC): An MNC that is borderless with no home country

~ Foreign direct investment (FDI): the transfer of money from the home country of a business to a foreign host country to fund overseas businesses

In general MNCs have a greatly positive effect on the countries they open offices in and on the global economy overall:

Going Abroad
Employment levels for U.S.-based multinational companies in 2009, and the change since 1999

CANADA 1.0 million Up 6%
U.K. 1.1 million Up 8%
MEXICO 904,300 Up 17%
BRAZIL 505,300 Up 47%
GERMANY 614,500 Down 2%
FRANCE 529,900 Up 2%
CHINA 943,900 Up 262%
INDIA 453,300 Up 642%

Source: U.S. Commerce Dept.

Platform Corporations:

Of course, not everything is positive with MNCs. Because of the FDI, it can be difficult for local businesses to compete with MNCs.

Also, as the map shows on the right, many MNCs have become platform corporations, where the manufacturing component has been removed from the core activities of research and development (R&D), retail, marketing and distribution.

Core Base
R&D | Distribution | Marketing/Retail
Manufacturing Base
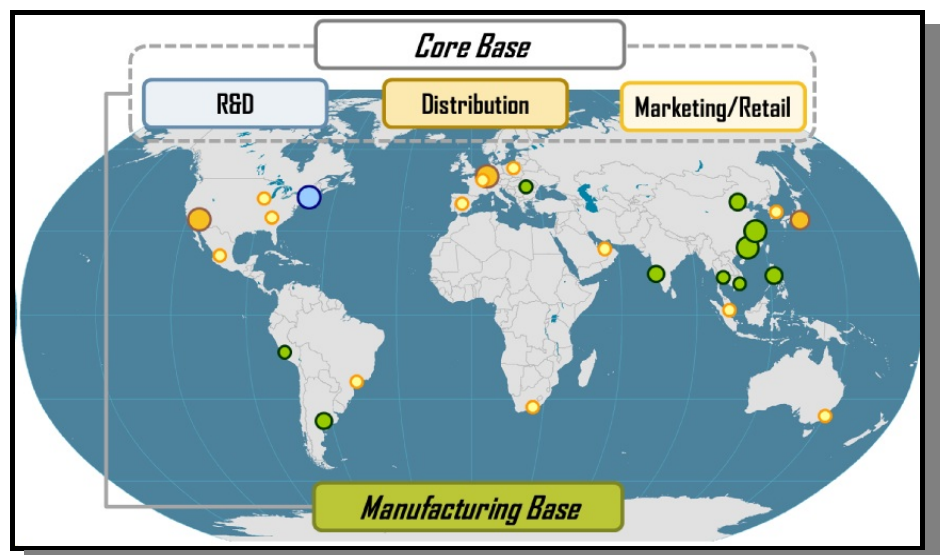
Deindustrialization in the United States

As an MDC, the United States has moved from a secondary sector country focused on manufacturing to a tertiary sector country focused on services. This has led to:

Deindustrialization: a process of social and economic change caused by the removal or reduction of industrial capacity or activity in a country or region, especially heavy industry or manufacturing industry.

American Manufacturing Belt: it extends from the northeastern seaboard to Iowa and from the St. Lawrence Valley to the confluence of the Ohio and Mississippi rivers

Rust Belt: an area straddling the Midwestern and Northeastern United states plus small parts of the Upper South in which local economies traditionally specialized in large scale manufacturing

Sun Belt: an area of warmer weather states in the South that made up one of the first destination for factory jobs from the North because of less union activities
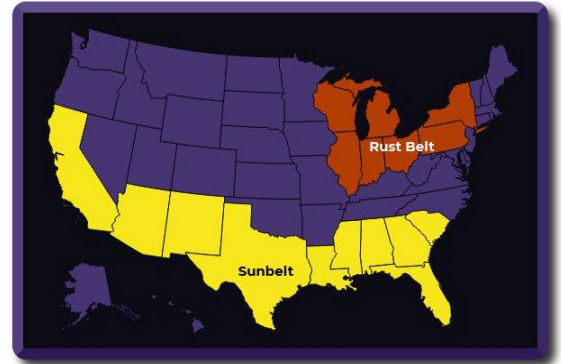
New International Division of Labor: transfer of some types of jobs, especially those requiring low-paid, less-skilled workers, from MDCs to LDCS

So what exactly happened?

Because of high minimum wage in the United States (comparatively), and high union activity in the Northeast, companies started to look for other places to put their factories, because in the end, companies' greatest concern is maximizing profits.

Many jobs moved to the South first because of less union activities, then to Mexico, where the labor was much cheaper ($2 an hour compared to $20 an hour according to the cartoon).

As the globe shrank thanks to technological advancements in transportation, even Mexico became too expensive, and jobs were sent to

China, and the little tigers like Indonesia and eventually Vietnam. As the cartoon indicates, many people frown on this practice, but the trend is not likely to be reversed any time soon.

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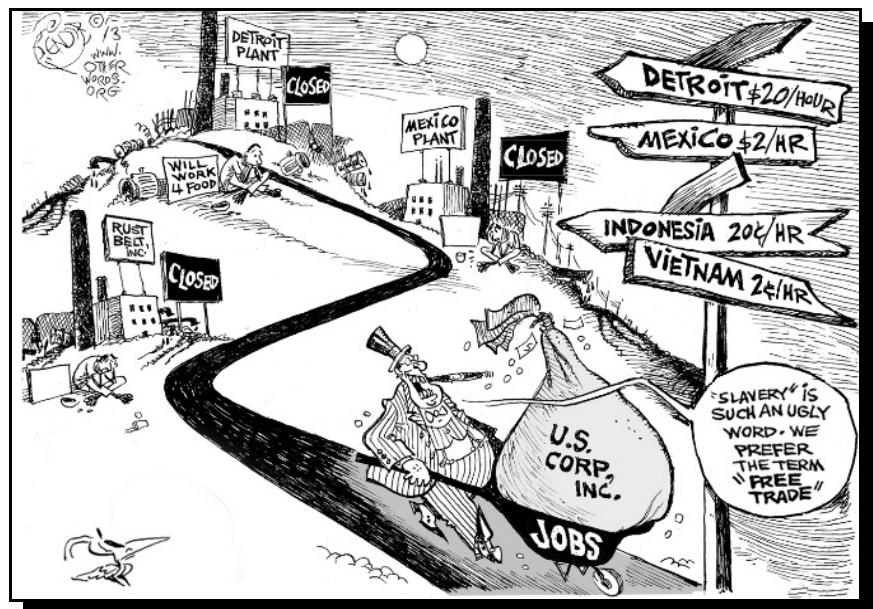
Offshoring and Outsourcing

	Offshoring	Outsourcing
Definition	Offshoring means getting work done in a different country.	Outsourcing refers to contracting work out to an external organization.
Risks & criticism	Offshoring is often criticized for transferring jobs to other countries. Other risks include geopolitical risk, language differences and poor communication, etc.	Risks of outsourcing include misaligned interests of clients and vendors, increased reliance on third parties, lack of in-house knowledge of critical business operations, etc.
Benefits	Benefits of offshoring are usually lower costs, better availability of skilled people, and getting work done faster through a global talent pool.	Usually companies outsource to take advantage of specialized skills, cost efficiencies and labor flexibility.

~ Back ffice: an office or center in which the administrative work of a business is carried out, as opposed to its dealings with customers

~ Footloose industry: a general term for an industry that can be placed and located at any location without effect from factors such as resources or transport

    Over time, it became apparent to companies that not everything needed to be located on site for a business, especially if that site was expensive like New York City. Back office jobs, such as call centers, could be done from anywhere, so companies started outsourcing them. Many call centers ended up in India since they speak English there due to British occupations. Similarly, companies started moving footloose industries "offshore" to places with lower taxes and production costs.
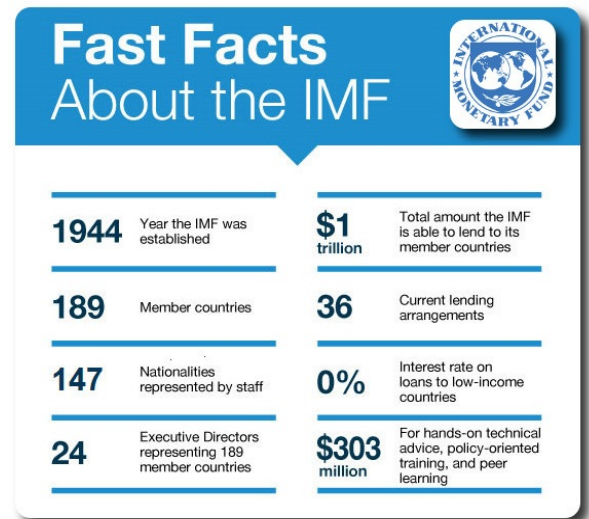
Interdependent Global Economies

~ International Monetary Fund (IMF): organization that provides loans to countries experiencing balance-of-payment problems that threaten expansion of international trade

The IMF was formed in the aftermath of World War II at the Bretton Woods Conference in the United States to ensure the stability of the international monetary system – the system of exchange rates and international payments that enables countries and their citizens to transact with each other. Basically, the belief is that the world is now interconnected economically, and it is important to protect countries from going bankrupt.

Ways the IMF does this:

1) Providing loans and working with governments to ensure responsible spending

2) Working with member countries to help modernize their economy

Fast Facts About the IMF

1944	Year the IMF was established	$1 trillion	Total amount the IMF is able to lend to its member countries
189	Member countries	36	Current lending arrangements
147	Nationalities represented by staff	0%	Interest rate on loans to low-income countries
24	Executive Directors representing 189 member countries	$303 million	For hands-on technical advice, policy-oriented training, and peer learning

The Global Financial Crisis of 2007-2008

2008 Financial Crisis

The Story of the Crisis

Up to 2007, US mortgage lenders greatly increased the provision of loans and lowered their lending standards.

Many mortgages were being lent to sub-prime households (households with a bad credit history).

The invention of complex financial products allowed them to package up and sell on the mortgage debt to investors and institutions.

After a slowdown in the US property market, investors exposed to these subprime mortgages were forced to write-off the value of their assets.

This called into question the solvency of some of America's largest financial institutions that were exposed to this risk.

This had significant contagion effects for other healthier banks in the US and the rest of the world.

Lower economic confidence and a lack of banks willing to provide interbank lending caused liquidity problems.

Impact of the Crisis

Annual GDP Growth Rate (%)

United Kingdom — United States — World
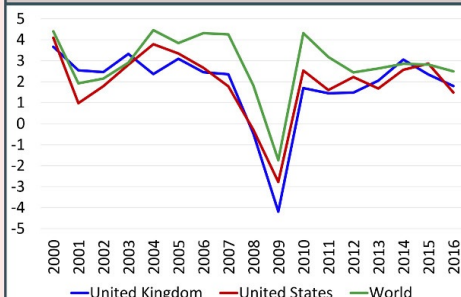
Output Gap	Inward AD Shift - Negative
Type of Unemployment	Cyclical
Inflation Rate	Falls
Economic Growth	Falls
Asset Values	Collapse
Consumption	Falls
Business Investment	Delayed
Confidence	Falls
Bank Lending	Falls

UK Policy Response

Lender of the Last Resort

Bank of England provided liquidity assistance to ensure that large banks did not fail.

RBS	Lloyds TSB

Monetary Policy Response

Cut interest rates close to the zero lower bound (5.75% to 0.50%).

QE Programme (2009-15)	£375bn

Fiscal Policy Response

Relied heavily on operation of automatic stabilisers and avoiding growth of structural deficit.

~ Mortgage: a loan in which property or real estate is used as collateral
~ Subprime Mortgage: a mortgage for borrowers of lower credit ratings that carries higher interest
~ Predatory Lending Practices: unscrupulous actions carried out by a lender to entice a borrower into taking a loan that carries high fees, a high-interest rate, or strips the borrower of equity

EPZs, SEZs & Maquiladoras

~ Tariff: a tax or duty to be paid on a particular class of imports or exports
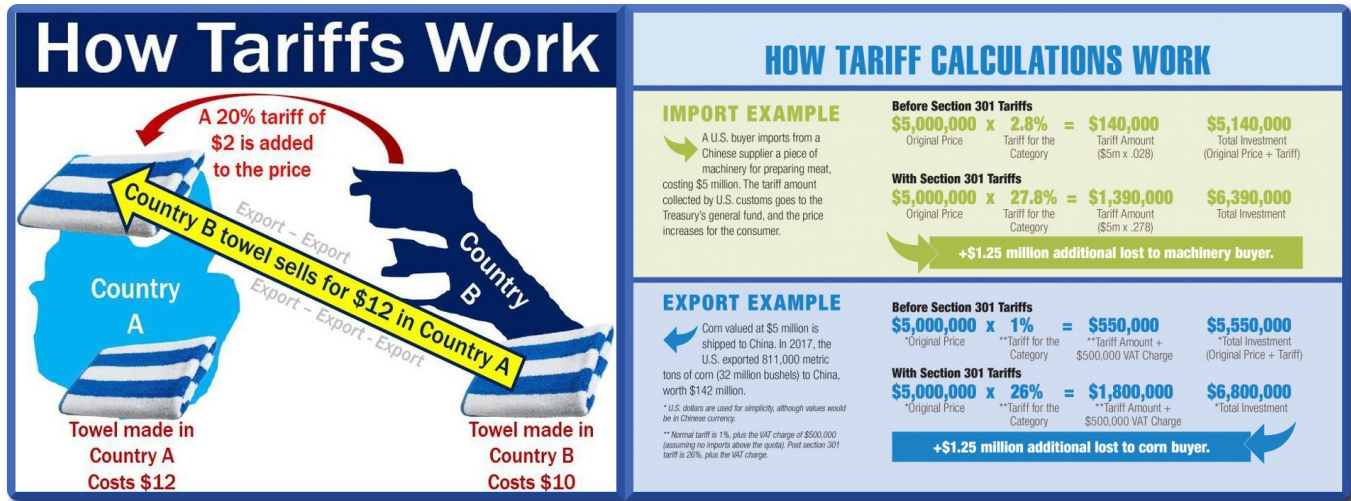
Export Processing Zones

An Export Processing Zone (EPZ) is also known as a Free Trade Zone. This is an area where the government creates specialized policies and desirable investment/manufacturing conditions to attract businesses.

What it looks like:

~ Duty free, simplified customs
~ Trade unions prohibited
~ Access to transportation and
     communication networks
~ Accessible facilities
~ Relaxed environmental restrictions
~ Readily available cheap workforce

PROS:
    ~ Attract foreign investment
    ~ Nontraditional exports
    ~ Can generate jobs

CONS:
    ~ Can create uneven development by
    concentrating resources

Special Economic Zones

Special Economic Zones (SEZs) are EPZs of China as part of an experimental policy to create more open, market-oriented economy.

They are used to attract foreign investment with tax holidays, exemptions from duties on goods and reduced property rates. The SEZs tend to be larger than a typical EPZ.

Maquiladoras

A maquiladora is a foreign-owned manufacturing plant that gets duty-free materials to assemble/process then export. They are part of a government strategy to alleviate unemployment along U.S. borders and disperse some industry away from Mexico City.

~ Basically an EPZ of 1 factory   ~ Can be found in Mexico, Latin America and Caribbean
~ Surged after NAFTA   ~ U.S. Economic slump in 2001 hurt maquiladoras

Free Trade Agreements

~ Neoliberalism: A policy model that seeks to transfer control of economic factors to the private sector from the public sector. It tends towards free-market capitalism and away from government spending, regulation, and public ownership.

~ Free Trade Agreement: An agreement between areas to allow goods and services across common borders without hindrances, though capital and labor may not necessarily move as freely

Free Trade Agreement Pro and Cons

PROS	CONS
Increased economic growth	Increased job outsourcing
Lower government spending	Poor working conditions
Technology transfer	Degradation of natural resources
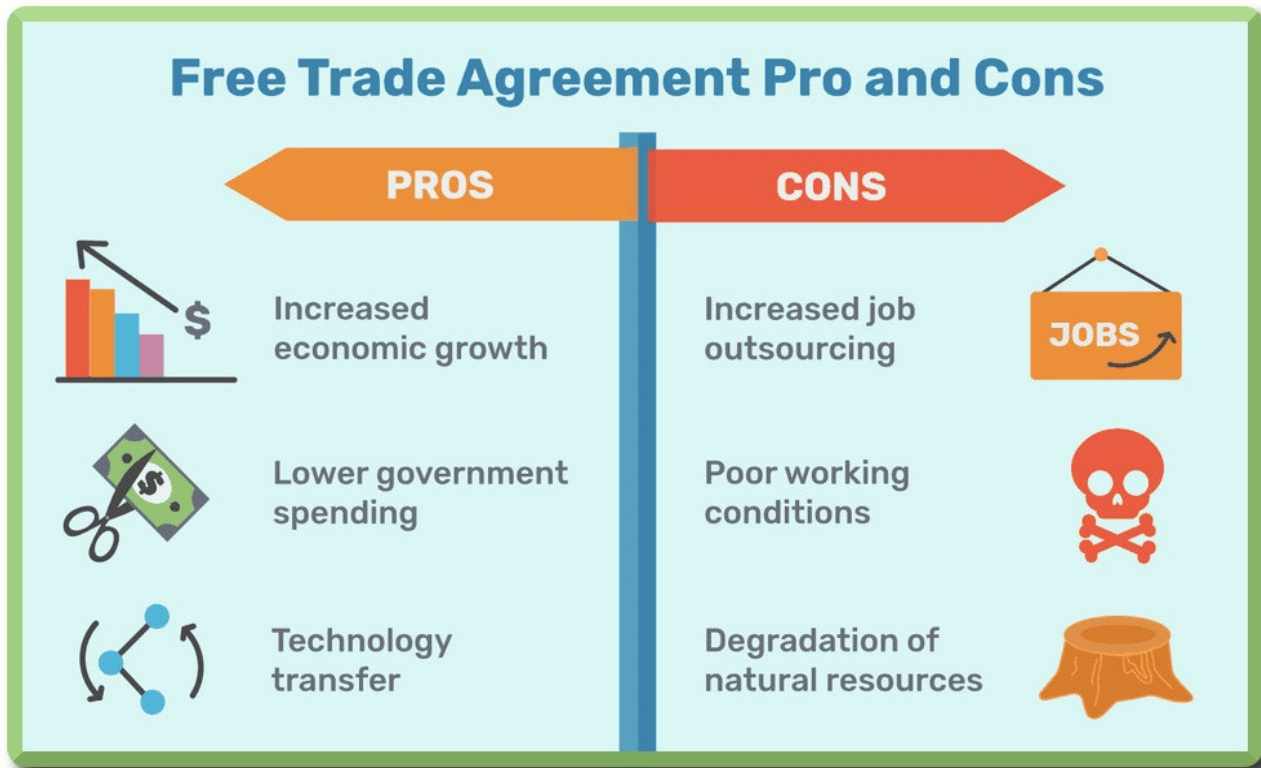
Free trade creates new organizations, new spatial connections, and new trade relationships, as well as increasing the speed off globalization.

Here is a look at a few free trade organizations:

1) The European Union

It has a currency, an internal single market and a standardized system of laws.

2) Mercosur

Officially called the Southern Common Market, it is a group of South American countries seeking to promote free trade. Venezuela is currently suspended.

3) World Trade Organization (WTO)

Replacing GATT in 1995, it regulates international trade and tries to reduce tariffs.

4) The Organization of the Petroleum Exporting Countries (OPEC)

Countries controlling more than 80% of the world's oil, and thus giving them a major influence on the global oil market. Saudi Arabia is the de facto leader.

Fordism vs. Post Fordism

~ assembly line: a series of workers and machines in a factory by which a succession of identical items is progressively assembled

Fordist production is basically the production spawning from the original design of American automaker Henry Ford, who created the assembly line for mass production of cars.

In Ford's system, large corporations mass produce items, and once production has started it is very difficult to reconfigure. Consumers get to consume only those commodities which the mass-producers find convenient to make. It is a production-driven economy, and it flourished when the United States was working on big products like the U.S. highway system.
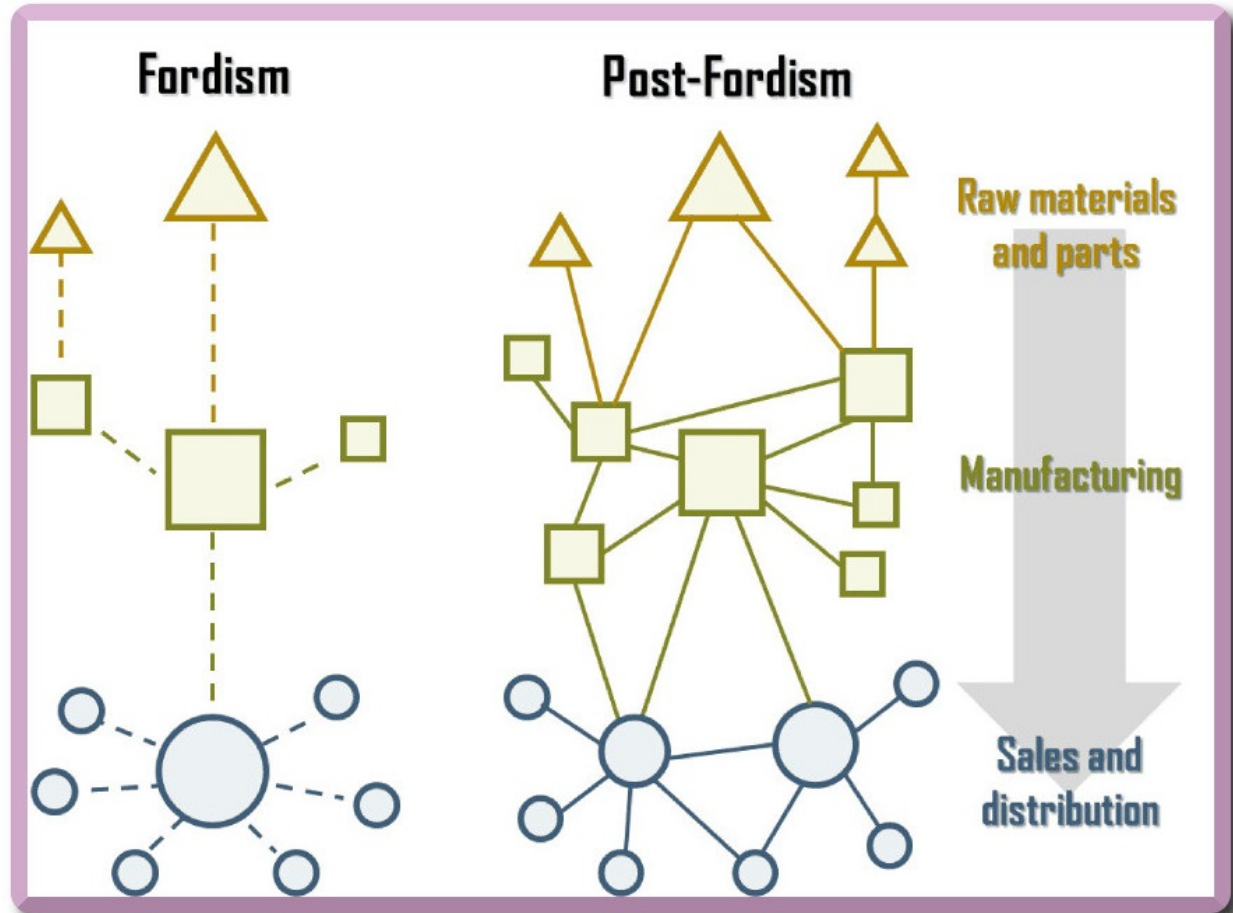
~ just-in-time delivery: a style of producing goods where the production process only begins when the customer places an order, with minimal inventory kept in stock

With the rise of new industrialized countries (NICs) in the 1970s, production no longer had to be centralized in a few key manufacturing centers. Because of computer controlled tools and specialized manufacturing techniques, it became efficient to customize production. Computers allowed a level of sophistication in logistics that made just-in-time delivery possible. Instead of being producer driven, production became more consumer-oriented.

Just-in-time delivery isn't perfect. When a company tries to keep exactly the right amount of a product in stock, a sudden increase in demand or decrease in supply can cause severe issues. Say a celebrity is photographed wearing a product, and demand spikes. It is unlikely there will be enough to delivery "just in time". Similarly, if something delays the supply, you will not have just enough.

Contemporary Economic Landscape

~ Agglomeration: the clustering of industries in cities and compact industrial areas in order to share infrastructure and markets

     The simple way to put agglomeration is that if industries locate in the same place, it can save them all money. If a factory needs an access road for supplies, for example, it makes sense for three more factories of the same type to locate there and split the cost of the road.

     Agglomeration is highly related to Alfred Weber's Least Cost Theory. Weber's theory projects where the best place to locate industries would be. Similar industries would naturally flock together.

PROS	CONS
~ Low transportation costs	~Environmental pressure
~ Great local market	~ Corruption
~ Large supply of nearby labor	~ Economic inequality
~ Knowledge spillover between firms	~ Overburdened infrastructure

~ High Tech Corridors: Areas are along or near transportation arteries that are devoted to the research, development, and sale of high-technology products.

     These areas develop because of the networking and synergistic advantages of concentrating high-technology enterprises in close proximity to one another. They are basically agglomerations of research stations.

The Research Triangle
NORTH CAROLINA

     Examples of high-tech corridors: Silicon Valley in Northern California, the Research Triangle in North Carolina, and the Golden Corridor in Chicago.

~ Growth Poles Theory: Theory that economic development, or growth, is not uniform over an entire region, but instead takes place around a specific pole (or cluster). This pole is often characterized by key industries around which linked industries develop.
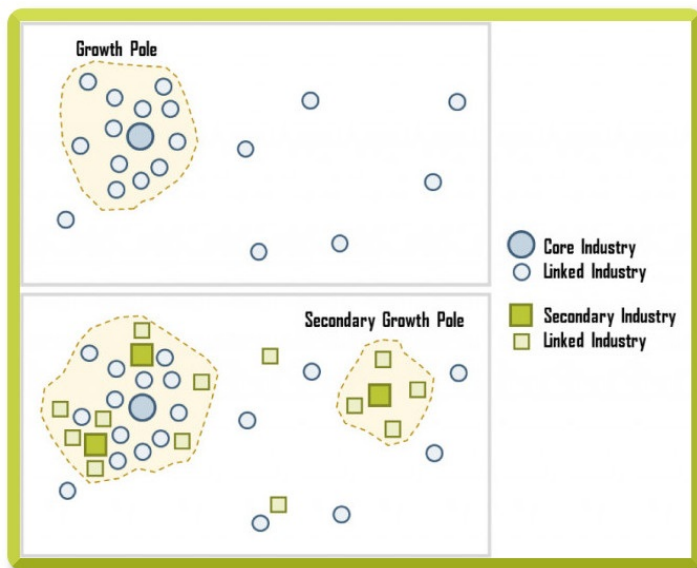

     The basic premise is that the core industry creates a multiplier effect (where the increase in initial spending produces an increase in national income and consumption greater than the initial amount spent).

     In this scenario, a company builds a factory. It employs those that work at the factory and the people who built it (that's a direct effect), but those employees that moved to the area need to buy food and housing, creating indirect benefits as well.

Rise of the Service Sector

Change in manufacturing employment, 1990-2016

Legend:
- (483,400) - (6,600)
- (6,599) - (800)
- (799) - (1)
- 0 - 300
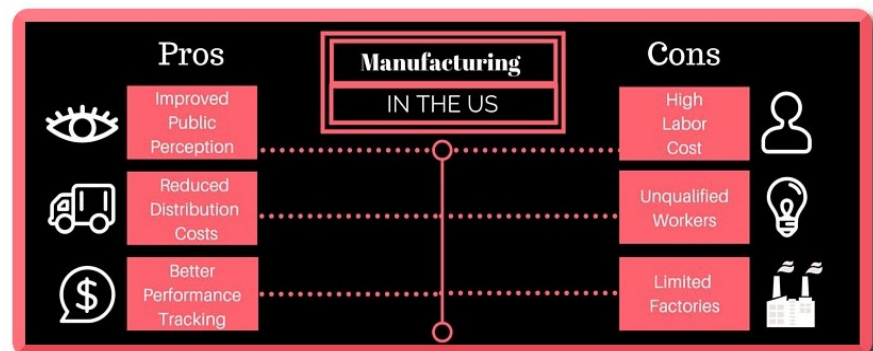- 301 - 1,000
- > 1,001
- No data
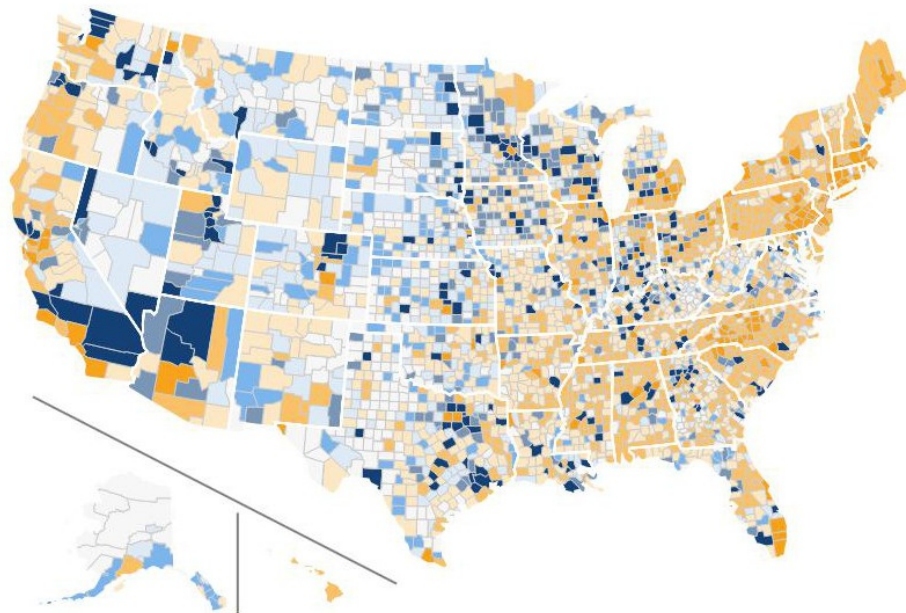
The yellow on the map above represents massive amounts of people leaving the manufacturing industry, while the blue represents modest amounts of people joining. In 1990, all but one state (Nevada) saw either manufacturing or wholesale and retail trade as the industry with the largest employment. By 2016, 48 states saw service sector jobs as their states top industry, with only Wisconsin and Indiana still led by the manufacturing industry.

~ service: any activity that fulfills a human want or need in exchange for money

Most people in MDCs work in services, while only 10% of people in LDCs do. Politicians often promise to bring these manufacturing jobs back, but historically, that has no happened long term, especially in labor-intensive industries. The more labor something takes, the more likely that activity is to take place where the labor is cheapest.

Types of services:

1) Consumer services
   Servicing individual consumers
2) Business services
   High end financial jobs servicing other businesses
3) Public services
   Police, Fire fighters, teachers

Manufacturing IN THE US

Pros	Cons
Improved Public Perception	High Labor Cost
Reduced Distribution Costs	Unqualified Workers
Better Performance Tracking	Limited Factories

Top Sustainability Issues for in Modern World

1) Pollution

One of the biggest pollution issues in the major industrial areas of the world, and in cities as well, is air pollution. According to an MIT study, in 2005 alone, air pollution cost the Chinese economy $112 billion dollars. The costs of pollution go beyond medical bills and loss of productivity. Heavily polluted areas make it difficult for companies located there to hire and retain workers, forcing them to pay higher wages to attract and keep employees.

2) Mass consumption

With the world that increasingly centers around the consumer, multiple problems develop. Some of the problems with mass consumption are:

~ Excessive use of raw materials
~ Increased use of fossil fuels to produce products
~ Placement of factories in areas of the world with low environmental standards
~ Products are designed to have short live spans so people will buy more of them
~ The products cheap price tags do not reflect the real environmental cost

3) Waste disposal

The increase in the planned obsolescence of products is only one factor in increased waste. In addition to overflowing landfills, solid garbage is often burned, adding to air pollution. Excessive waste can attracts vermin, smell horribly, and even leach into the ground water.

4) Climate change

Shoreline erosion, coastal flooding and greater storm surges cause significant damage to coastal property and infrastructure. Cities, inhabited islands and tidal wetlands will be more prone to flooding. Climate change can also lead to a higher demand for energy as people use more electricity to adjust varying temperatures.

5) Drought/Inadequate Access to Water

According to the World Health Organization, 36% of the world's population lack access to improved sanitation facilities and 748 million people get their drinking water from unsafe sources. The World Wildlife Fund predicts that water shortages will affect two thirds of the world's population by 2025.

Ecotourism

~ Ecotourism: tourism directed toward exotic, often threatened, natural environments, intended to support conservation efforts and observe wildlife

One of the creative ways to battle against the destruction of the environment is to invite people to see it. Rather than bringing massive amounts of people to fragile exotic locales, it is more small scale. It is designed to educate the traveler, provide funds for conservation, or directly benefit local communities.