

## 2020 Big Ideas Packet Table of Contents

### Unit 1: Thinking Geographically

Map Types	1
Maps and Spatial Patterns	2
Map Projections	3
Geospatial Technologies	4
Observations of Spatial Information	5
The Power of Data	6
Spatial Concepts	7
Nature and Society	8
Human Environment Interaction	9
Scale of Analysis	10
Regional Analysis	11

### Unit 3: Cultural Patterns and Processes

Introduction to Culture	26
Cultural Landscape- Language	27
Cultural Landscape- Religion	28
Patterns Related to Language	29
Patterns Related to Religion	30
Types of Diffusion	31
Historical Causes and Effects of Diffusion	32
Contemporary Causes and Effects of Diffusion	33
Diffusion of Religion	34
Diffusion of Language	35
Effects of Diffusion	36

### Unit 2: Population and Migration Patterns and Processes

Population Distribution	12
Population Density	13
Consequences of Population Distribution	14
Population Pyramids	15
Population Dynamics	16
Demographic and Epidemiological Transitions	17-18
Malthusian Theory	19
Population Policies	20
Women and Demographic Change	21
Aging Populations	22
Causes of Migration	23
Forced and Voluntary Migration	24
Effects of Migration	25

### Unit 4: Political Patterns and Processes

Intro to Political Geography	37
Influencers of Political Boundaries	38
Political Power and Territoriality	39
Types of Political Boundaries	40
The Function of Political Boundaries- Land	41
The Function of Political Boundaries- Sea	42
Internal Boundaries	43
Forms of Governance	44
Defining Devolutionary Factors	45
Examples of Devolution and Disintegration	46
Supranationalism	47
Consequences of Centrifugal and Centripetal Forces	48

**Unit 5: Agriculture and Rural Land-Use Patterns and Processes**

Climate and Agriculture	49
Types of Intensive Agriculture	50
Types of Extensive Agriculture	51
Settlement Patterns and Survey Methods	52
The 1st Agricultural Revolution	53
Columbian Exchange	54
The Second Agricultural Revolution	55
The Green Revolution	56
Agricultural Production Regions	57
Trends in the Spatial Organization of Agriculture	58
Von Thünen Model	59
The Global System of Agriculture	60
Consequences of Agricultural Practices	61
Challenges of Contemporary Agriculture	62
Sustainable Agricultural Solutions	63
Women in Agriculture.	64

**Unit 7: Industrial & Economic Development Patterns and Processes**

The Industrial Revolution	82
Economic Sectors	83
The Location of Manufacturing	84
Measures of Development	85
Women and Economic Development	86
Theories of Development	87
Trade and the World Economy	88
Interdependent Global Economies	89
Changes as a Result of Deindustrialization	90
Enviro. Impacts of Ind. and Development	91
Sustainable Development	92
Sustainable Development Goals	93

**Unit 6: Cities and Urban Land-Use Patterns and Processes**

The First Urban Revolution	65
The Influences of Urbanization	66
Cities Across the World	67
Cities in North America	68
Cities and Globalization	69
The size and distribution of cities	70
The Internal Structure of Cities in North America	71
The Structure of Cities Outside North America	72
Density and Land Use.	73
Infrastructure	74
Urban Sustainability	75
Urban Design Initiatives- Impacts	76
Urban Data	77
Challenges of Urban Changes	78
Urban Renewal and Gentrification	79
Challenges to Urban Sustainability	80
Responses to Urban Sustainability Challenges	81

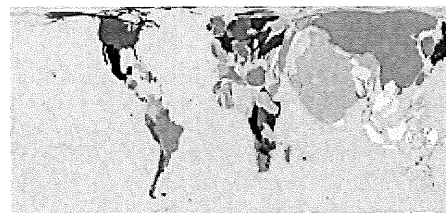
## Map Types

**Reference map-** The map displays the boundaries, names and unique identifiers of standard geographic areas, as well as major cultural and physical features. Ex. Map of Louisville or World

**Thematic map-** A thematic map is a map that emphasizes a particular theme or a special topic (these maps are the focus of Human Geography).

**Cartogram-** This map distorts land area to show changes in value. For example on a Cartogram of total population China and India are going to be more rounded, and have a noticeably higher land area.

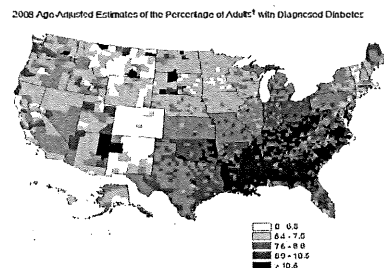
-Cartogram- The greater the value being measured, the greater the land area and vice versa.



<https://www.esri.com/news/arcuser/0110/cartograms.html>

**Choropleth Map-** This map uses different shades to show the variation of the values. When looking at a Choropleth Map when you see a darker shaded area that typically means that it has a higher, more dense value.

**\*TRICK TO REMEMBER\*** When trying to name this map, just look at the one with multiple different shades of **COLORS**, think **CHORO**.



<https://247wallst.files.wordpress.com/2011/06/diabetes.jpg>

**Dot Map-** Uses dots to show different values.

-More dots=Greater value

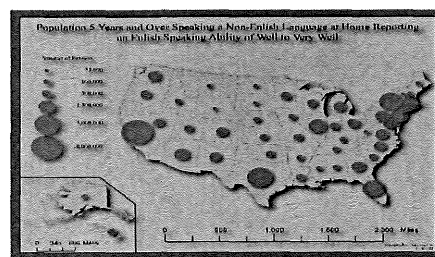
-In this example each tiny grey dot represents 200 farms.



<https://slideplayer.com/slide/7072505/>

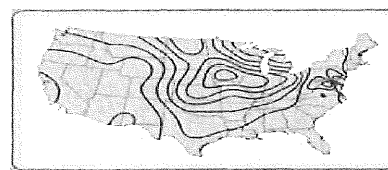
**Graduated Symbol-** This map uses a symbol to represent a certain value. The larger the symbol, the higher the value, and vice versa.

-One example of this is the literacy rate in the US. In places where the literacy rate is higher there will be a larger symbol.



<http://tcgeographytechniques.blogspot.com/2013/12/proportional-symbol-bilingualism.html>

**Isoline Maps-**maps with lines drawn to link different places that share a common value.



<https://www.flickr.com/photos/8>

# Maps and Spatial Patterns

**relative space** - space that is created and defined by humans (defined by how humans interact with the environment)

**absolute** - with an **QUANTITATIVE** (numerical) measure (meaning location location, distance, and direction)

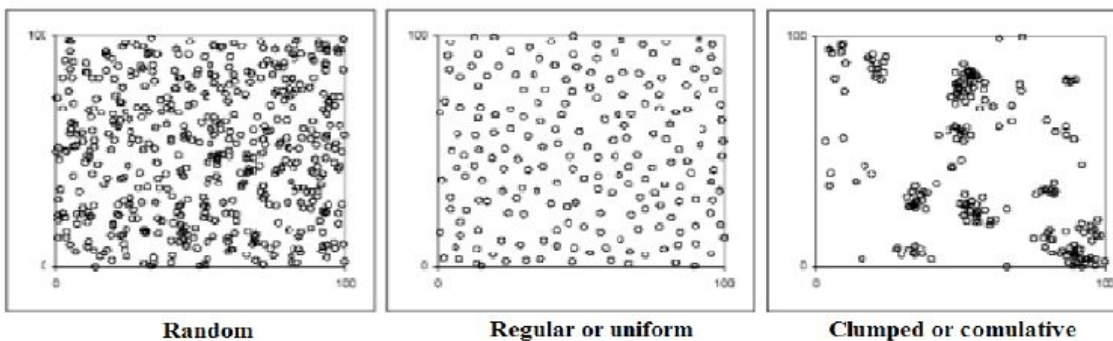
**relative** - with a **QUALITATIVE** (descriptive) measure that is represented by comparing it to a known geographical feature.

- ex. location: 30°N, 25°W  
(longitude/latitude)
- distance: in mi., km., etc.
- direction: north, south, east, west  
(directions on a compass)

- ex. location: near the Washington Monument
- distance: 30 minutes South
- direction: left, right, front, etc.

<u>Spatial patterns represented on maps:</u>		
<b><u>Distance and Direction</u></b> - absolute and relative (mentioned above)	<b>Uniform</b> - evenly spaced	<b><u>Clustering/Clumped</u></b> - grouped/bunched together
<b><u>Dispersal/Scattered</u></b> - appears to be distributed over a wide area	<b><u>Elevation</u></b> - using levels of how high/low something is located on the Earth's surface	<b><u>Agglomeration*</u></b> - grouped together purposely
<b>Sinuuous</b> - shown in a wavy configuration	<b>Random</b> - configured in no specific pattern	<b>Linear</b> - shown in a line configuration

- (underlined) - important dispersion patterns
- \* this is explained in more detail in later units

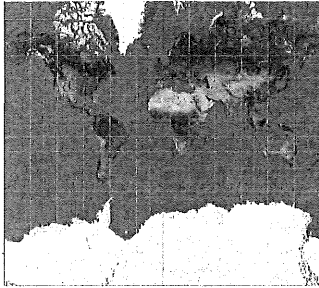


[https://www.researchgate.net/figure/Types-of-spatial-patterns-27\\_fig1\\_266737725](https://www.researchgate.net/figure/Types-of-spatial-patterns-27_fig1_266737725)

# MAP PROJECTIONS

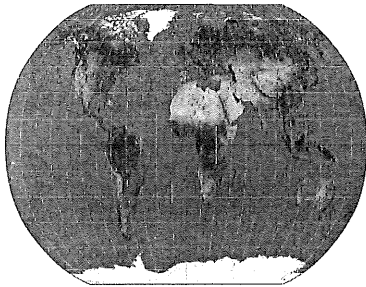
A **map projection** is a transformation of the latitudes and longitudes of locations of a sphere (like Earth) into locations on a flat surface (map). All **map projections** distort the surface (distance, direction, area, or scale) in some fashion.

## MERCATOR PROJECTION

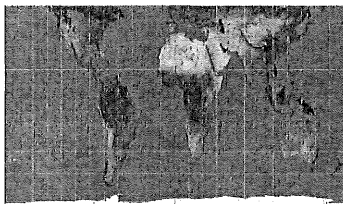


TYPE & CREATOR	BENEFITS	PURPOSE	DISTORTION
Conformal  1569 – Gerardus Mercator	Preserves 90° angles and straight lines of longitude and latitude  Shows true direction	Best map for nautical use to help ship captains  Most commonly-used and accurate projection	Poles appear much larger than they are (areas become larger with latitude)
Compromise  1963 – Arthur Robinson	Shows accurate shapes and sizes (area) of land masses	Commonly used by schools  Used in atlases	Distorts poles
Equal-Area  1967 – Arno Peters	Not much distortion of continents (size is preserved)  Superior alternative to Mercator	Used for navigation  Used in world maps	Distorts oceans
Azimuthal Equidistant  1581 – Guillaume Postel	Distances from the center (poles) are preserved	Used by airline pilots to navigate best routes around the Earth  Used as an emblem on the United Nations flag	Distorts land size  Distorts parallels of latitude

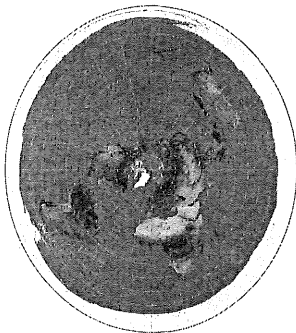
## ROBINSON PROJECTION



## PETERS PROJECTION



## POLAR PROJECTION



### EQUAL AREA MAP PROJECTION

Oceans are distorted to minimize the distortion of the continents

### CONFORMAL MAP PROJECTION

preserves the shape of features on the map but may greatly distort the size of features.

# Geospatial Technologies

## Geographic Information System (GIS)-

- A system designed to collect, store, analyze, and present georeferenced data

Data tied to locations on Earth ↴

- Built around spatial and attribute information
- Criticized for being too expensive, creating a power divide, and promoting a strongly Western view of the world.
- Used in all fields of study to make maps that communicate, perform analysis, share information, and solve problems around the world.
  - Ex: - Used to predict fish yield in Sub-Saharan Africa
  - Used to track and predict deforestation in Bolivia
  - Used to select sites for new schools in Jamaica



<https://storymaps.arcgis.com/stories/b60b7399f6944bca86d1be6616c178cf>

## Remote Sensing-

- Gathers information on Earth by using sensors on aircrafts and satellites without making any physical contact with the object (giving it the name remote sensing).
- Has applications in many fields including natural resource management, hazard assessment, and coastal and ocean applications.

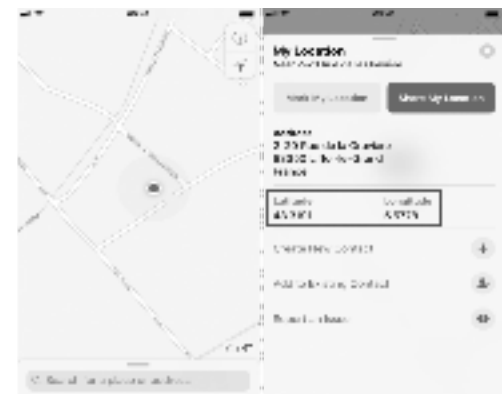


<https://tariq.ae/gis/?cat=40>

## Satellite Navigational Systems-

- System of satellites that provide geospatial positioning.
- Allows electronic receivers (Ex: phone) to determine their location with precision.
- Ex: - Russia's Global Navigation Satellite System (GLONASS)
  - China's BeiDou Navigation Satellite System (BDS)
  - United States' Global Positioning System (GPS)

Uses lines of latitude and longitude to allow users to find their exact location, velocity, time, and weather conditions anywhere in the world. ↴



Textbook pages 23-28

<https://www.idownloadblog.com/2017/12/20/how-to-find-gps-coordinates-iphone/>

## Observations Of Spatial Information

Spatial Information is information relating to space and how it is used

Type of Account	What it is	Spatial Info You Can Gain
Field Observations	Where you observe people in absolute space and situations	Architecture, Land use, Settlement patterns, climate effects
Media Reports	Communication from media companies about different human interactions	Land use, Agricultural patterns, economic impacts
Travel Narratives	Written first hand accounts from people visiting a place	Settlement patterns, Transportation, Land use, Architecture
Policy Documents	Official papers that define the rules, guidelines, and regulations of a place	Land use, settlement patterns, economic impacts,
Personal Interviews	Someone explaining their observations or opinions	Transportation, Settlement patterns, economic impacts
Landscape Analysis	A study of how the land is being used and of the human environment interactions	Land Use, Agricultural Practices, architecture, climate effects
Photographic Interpretation	The studying of a photograph	Agricultural Practices, Land use, Settlement patterns, Architecture, Transportation,

**Examples of photographic interpretation:**

**\*\*This is an urban vs agricultural landscape comparison to gain information on how these spaces are being used differently and the same**

- From looking at these photographs you can gain the understanding that the top photo has a more industry and service based economy, while the one below it has a mostly agricultural based economy in that area.
- There are distinct types of architecture such as skyscrapers and office buildings in the top, but barns and houses in the bottom one
- The urban area also shows a more condensed population in the area compared to in the agricultural area

[https://commons.wikimedia.org/wiki/File:Agricultural\\_landscape\\_Mergelland.jpg](https://commons.wikimedia.org/wiki/File:Agricultural_landscape_Mergelland.jpg)

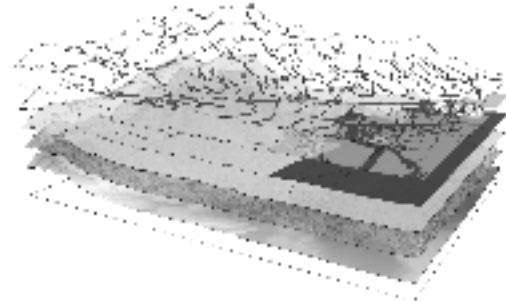
<https://wallpaperaccess.com/city-landscape>



# Power of Data

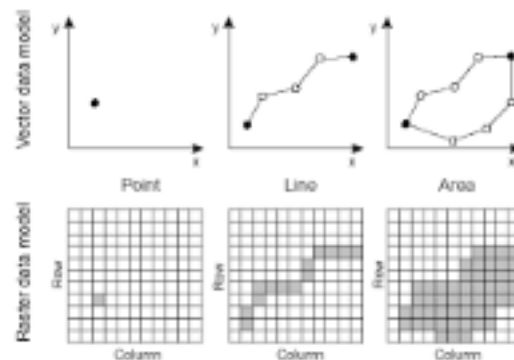
## Geospatial Data-

- Is any data with a geographic aspect that refers to a position on the earth: a house, building, landmark, etc.
- Processed and analyzed by geographical tools
  - Ex: Remote Sensing, GPS, and GIS
- Categorized as either vector or raster data



<https://libguides.library.arizona.edu/GIS/about-gis>

Vector data	Raster data
<ul style="list-style-type: none"> <li>● Uses points, lines, and polygons.</li> </ul>	<ul style="list-style-type: none"> <li>● Made up of grid cells and pixels. Each pixel has a value.</li> </ul>
<ul style="list-style-type: none"> <li>● Represents spatial features like cities, roads, and streams.</li> </ul>	<ul style="list-style-type: none"> <li>● Shows elevation, satellite images, or paper maps</li> </ul>



<https://encrypted-tbn0.gstatic.com/images?q=tbn%3AANd9GcRH0Yc6wKfBY0Pdb2vhMOtqdLv8t-tiafscFs2qoPg0VhgDPqwr&usqp=CAU>

## Uses of Geospatial Data-

- Businesses incorporate geospatial data into their analysis reporting, and forecasting to exceed competitors through smarter use of their data.
- Governments use geospatial data from censuses to show who people are, where they live, and to draw out congressional and state legislative districts.
- Governments also use geographical tools like remote sensing, GIS, and GPS for satellite imagery



<https://www.stickpng.com/img/transport/spacecraft/satellite>



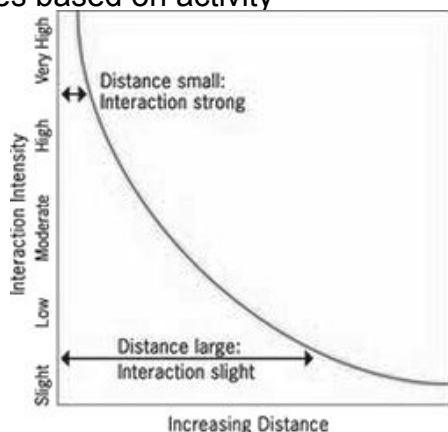
# Spatial Concepts

## Absolute Location

- A fixed location usually reckoned by latitude and longitude
- The absolute location of Louisville is 38.2527° N, 85.7585° W

## Distance Decay

- The tapering off of a process, pattern, or event because of distance
- Varies based on activity



## Place

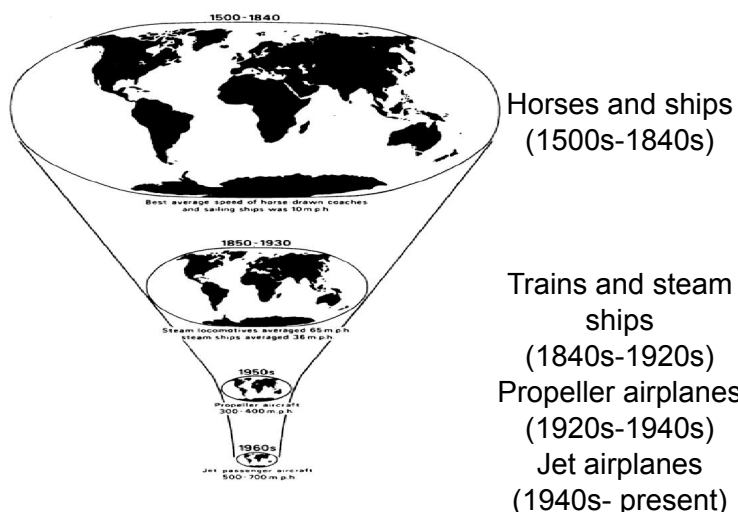
- Locality distinguished by specific physical and social characteristics
- Places can be identified by their absolute or relative location as well as their site and situation
- Contributes to the social, political, and economic functioning of our world

## Relative Location

- The position of a place in respect to other places
- There are many ways to define one place's relative location
- The relative location of Kentucky could be defined as north of Tennessee or south of Indiana

## Time-Space Compression

- The process of when advances in transportation and communication lessen the effect of distance
- A flight from Louisville to Los Angeles is roughly six hours which is roughly the same time it takes to drive from Louisville to Atlanta



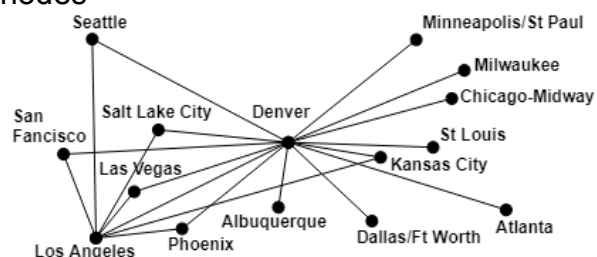
## Space

### Absolute space

- Refers to an area whose dimensions can be precisely measured
- Often compared to a container
- A formal cultural region is a good example of absolute space

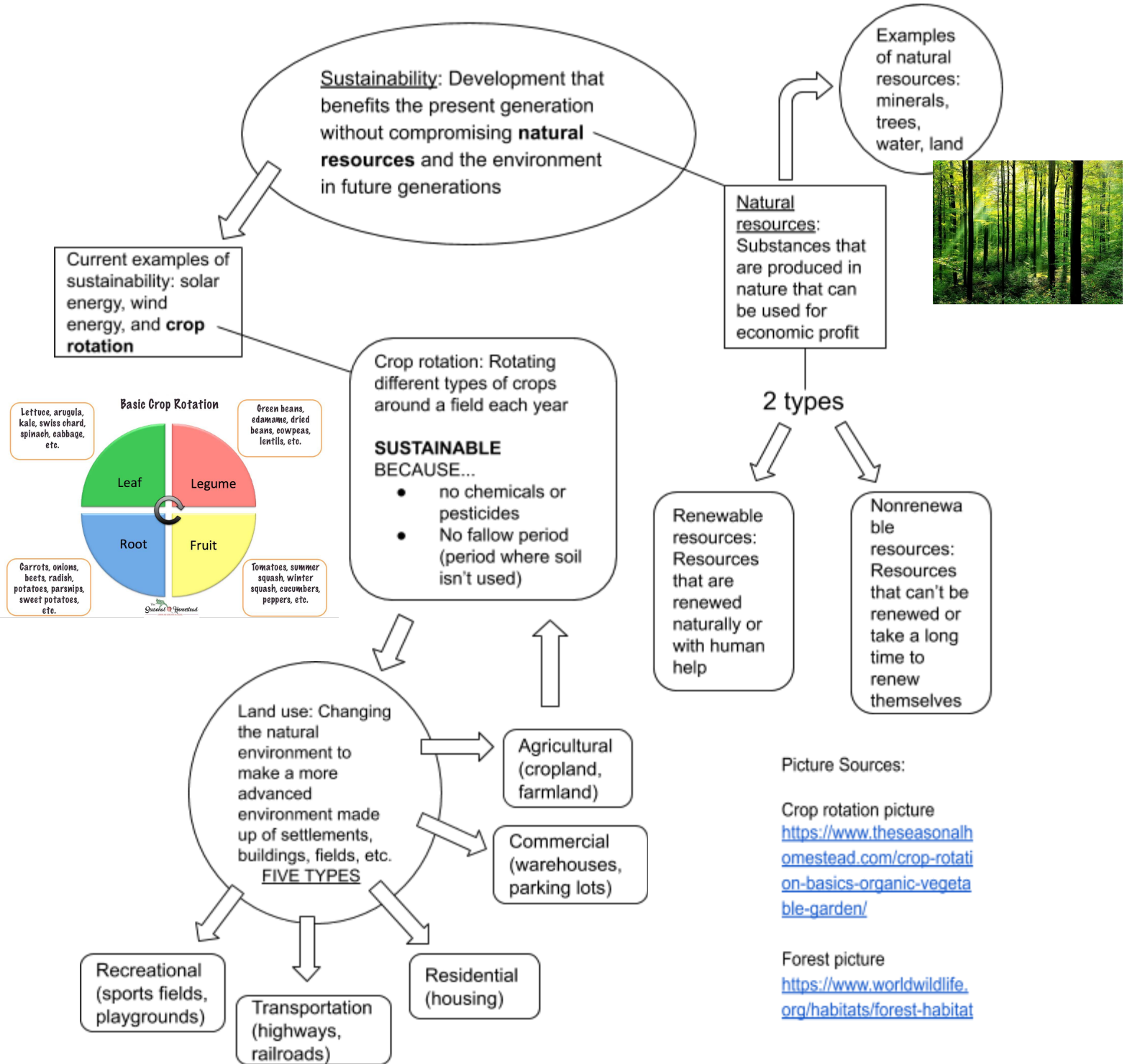
### Relative Space

- Created and defined by human interactions
- Can be represented by a network of linked nodes

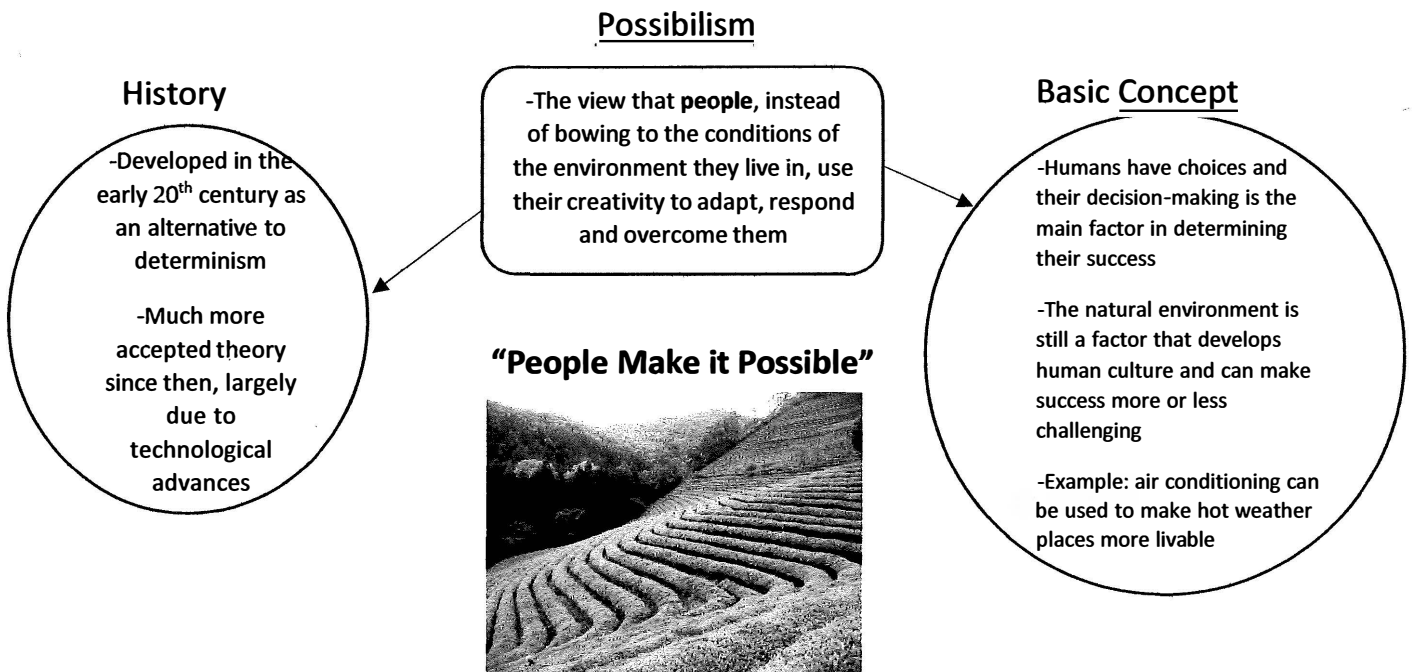
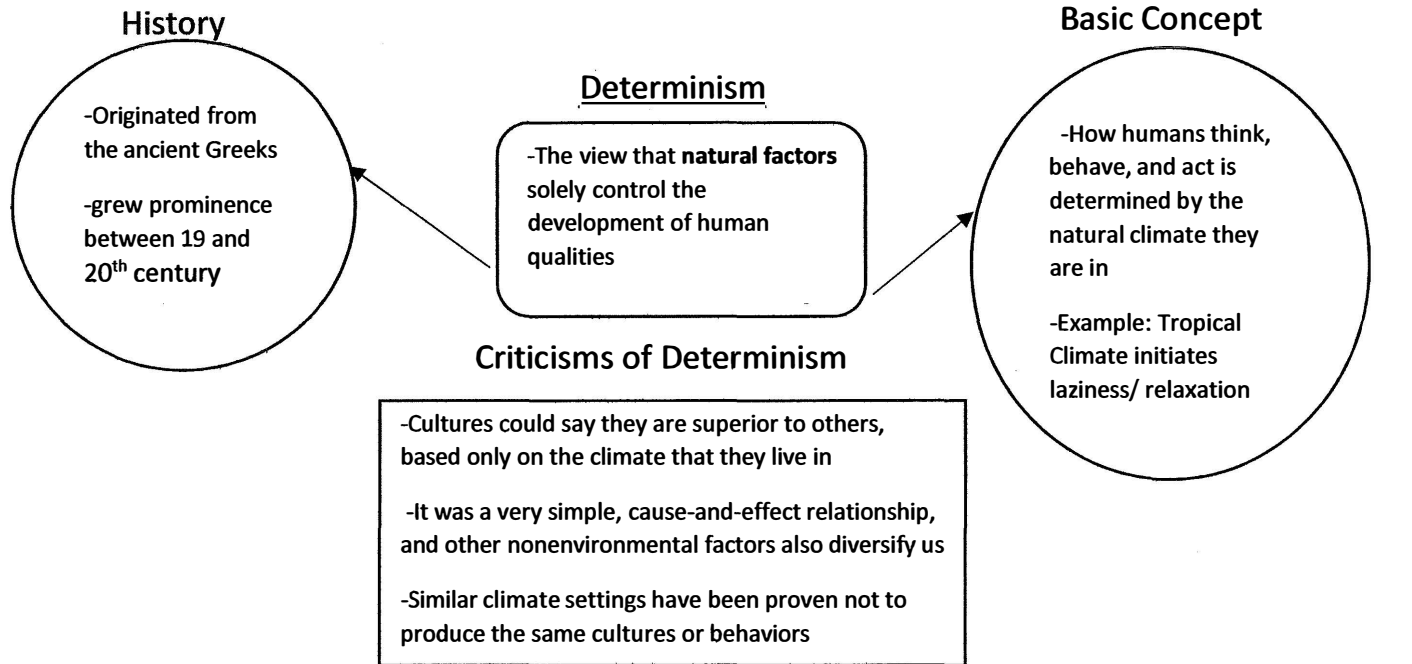


Textbook pages 12-20

# Nature and Society



## Theories of Human Environmental Interaction



[https://www.google.com/url?sa=i&source=images&cd=&cad=rja&uact=8&ved=2ahUKEwihz9rAu4\\_hAhUFU8KHW-](https://www.google.com/url?sa=i&source=images&cd=&cad=rja&uact=8&ved=2ahUKEwihz9rAu4_hAhUFU8KHW-)

# SCALE OF ANALYSIS

**Scale:** the relationship of the size of a map to the amount of area it represents on the earth

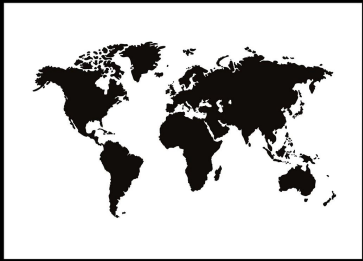

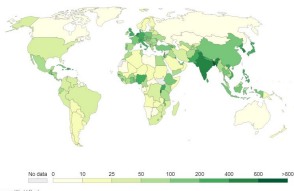

*Large scale vs. small scale*

**Large scale:** shows less area in greater detail

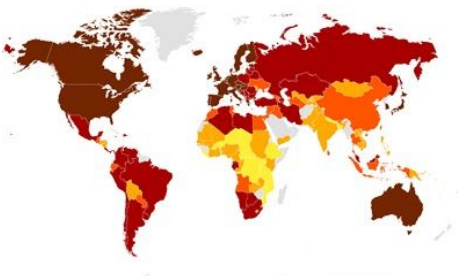

**Small scale:** shows larger area in less detail

**Scale of analysis:** the level at which the data is displayed.

*\*Notice that although the map scale is the same for 3 of the 4 maps below, the SCALE OF ANALYSIS differs in each*

<u>GLOBAL</u>	<u>REGIONAL</u>	<u>NATIONAL</u>	<u>LOCAL</u>
<p>-Shows the world at one level of data -Ex: World -This level of analysis is usually not that useful</p>  <p><a href="https://desenio.com/us/poster-world-map-black-white">https://desenio.com/us/poster-world-map-black-white</a></p> <p><i>Smallest Scale</i></p>	<p>-Shows data by continents or world regions -Ex: In this map Australia has the highest GDP per capita (PPP)</p>  <p><a href="http://mecometer.com/topic/gdp-per-capita-ppp/by-continent/">http://mecometer.com/topic/gdp-per-capita-ppp/by-continent/</a></p> <p><i>Small scale</i></p>	<p>-Shows data for one or more countries -Ex: In this map India has a high population density</p>  <p><a href="https://ourworldindata.org/most-densely-populated-countries">https://ourworldindata.org/most-densely-populated-countries</a></p> <p><i>Large Scale</i></p>	<p>-Shows subnational data -Ex: the states within the United States (could also show even more localized like counties, zip codes)</p>  <p><a href="http://www.newthinktank.com/wp-content/uploads/2011/08/US-Map-Detailed-EPS.png">http://www.newthinktank.com/wp-content/uploads/2011/08/US-Map-Detailed-EPS.png</a></p> <p><i>Largest scale</i></p>

*Are there low levels of poverty in the United States?  
Different scales of analysis can lead to different conclusions*

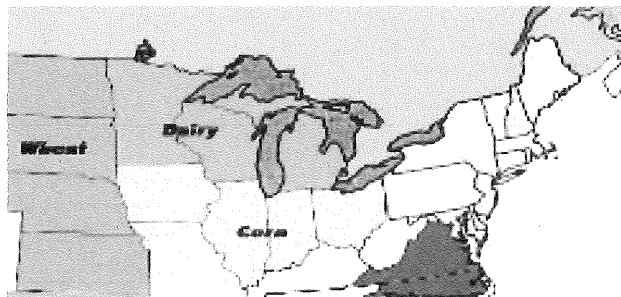
<u>NATIONAL POVERTY SCALE</u>	<u>LOCAL POVERTY SCALE</u>
 <p><b>Poverty map</b> GNI per capita Atlas method (Current US\$)</p> <p>Source: World Bank 2009</p> <ul style="list-style-type: none"> <li>Less than 630</li> <li>630 - 1,839</li> <li>1,840 - 3,989</li> <li>3,990 - 12,499</li> <li>12,500 or more</li> <li>No data</li> </ul> <p><a href="http://www.thedolphincharities.com/wp-content/uploads/2015/01/Millennium.jpg">http://www.thedolphincharities.com/wp-content/uploads/2015/01/Millennium.jpg</a></p>	 <p><a href="https://i.pinimg.com/736x/9d/8d/51/9d8d51b68d3892720b0ca2138b21a7ec--choropleth-map-maps.jpg">https://i.pinimg.com/736x/9d/8d/51/9d8d51b68d3892720b0ca2138b21a7ec--choropleth-map-maps.jpg</a></p>

## Regional Analysis

**Geographers group places together within regions to better understanding the similarities and differences between people and places.**

### **Formal Region:**

- Region described by having **unifying** cultural or physical characteristics
- Traits that can characterize a formal region:
  - Religion
  - Language
  - Political Boundaries
  - Ethnicity



[http://www.tombabin.com/dairy-belt-united-states-map-us-agr-cultural-map-teach-geography-pinterest\\_13.html](http://www.tombabin.com/dairy-belt-united-states-map-us-agr-cultural-map-teach-geography-pinterest_13.html)

#### ● **Examples:**

- The Dairy Belt is a formal region due to the commonality of a focus in agriculture of dairy farms in states like Minnesota, Wisconsin, and Michigan.
- A country, such as India, is a formal region due to shared governance.

\*\*\*Key Question- What is the shared characteristic(s)?

### **Functional Region:**

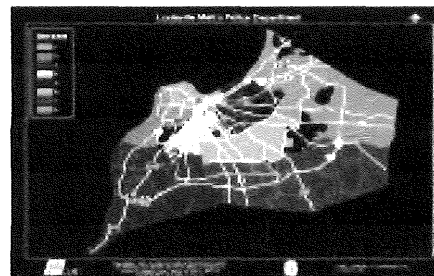
- Region defined by a political, social, or economic characteristic. The area must also have a **center of activity** (a node), like a corporation, entity, or business that organizes the activity.

#### ● **Examples:**

- TARC, Louisville's transportation service, has it's office downtown and organizes its bus systems throughout Louisville, spanning from areas like PRP to Prospect.
- LMPD's service in Jefferson County is an example of a functional region due to its central headquarters downtown, the division offices in different neighborhoods, and the streets they patrol.

\*\*\*Key Questions- What is the activity? What is the extent

- of influence of the node???



<https://www.google.com/maps/@38.251382,-85.753441,12z>

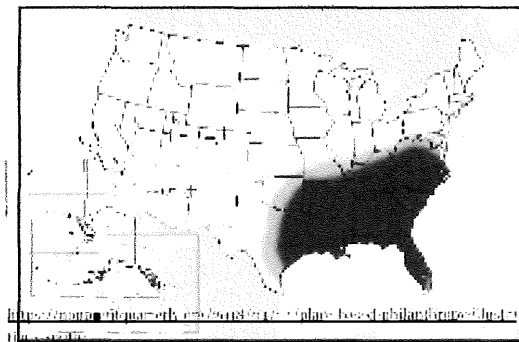
### **Perceptual Region (Vernacular Region):**

- Region characterized by a population's **sense of identity** and attraction towards an area, and tend to have less defined boundaries. Boundaries are subject to individual interpretation

#### ● **Examples:**

- The American South is often regarded as a perceptual region due to the shared "Southern" identity of people in the region and the heavy debate on the exact boundaries of the South. What does it mean to be Southern? Everyone knows, but the responses will vary based on personal experiences/perceptions.

Fore example- a southern accent- those in the far north will think I have one- but those in say Mississippi will say I don't












<https://www.google.com/maps/@35.227087,-80.843126,12z>

# Population Distribution

## 3 Basic Dispersion Patterns

- ① Uniform - equally-spaced apart
- ② Random - no predictable pattern
- ③ Clumped - bunched in groups

distribution influencing  
**FACTORS**

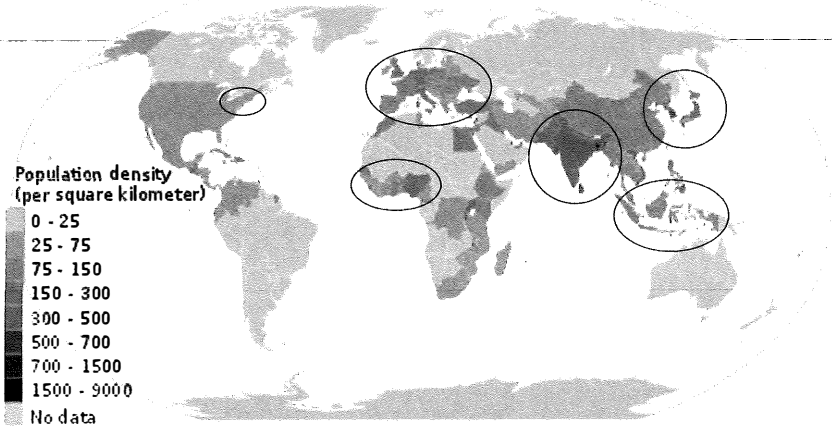
physical 	VS	human 
 <p><b>Climate:</b> extreme areas have a ↓ pop density ex. Europe's temperate climate attracts many people</p>		 <p><b>Politics:</b> stable/fair governments have a ↑ high pop. density ex. Sudan has an unstable gov't and a ↓ pop density</p>
 <p><b>Water Bodies:</b> river valleys may also promote human settlements due to resources ex. Egypt - 95% of the population lives within 5 miles of the Nile River.</p>		 <p><b>Economy:</b> areas w/ developed markets and skilled workers bring in high populations ex. India has a huge economy and a ↑ pop. density</p>
 <p><b>Landforms:</b> rugged terrain restricts the concentration of population in any area ex. Himalayan Mts. have a ↓ pop. density</p>		 <p><b>Culture:</b> cultural practices and ethnic relationships can influence settlement</p>
		 <p><b>History:</b> ancient settlement locations and colonialism have impacted pop. distribution. ex. Nigeria, the US, and India, all former colonies, have ↑ pop. densities</p>

pattern of where the ppl live

**population density ≠ population distribution**  
 ↪ # of ppl per unit of land

## Major Population Clusters

- ① East Asia
- ② South Asia
- ③ Southeast Asia
- ④ Nigeria
- ⑤ Europe
- ⑥ Northeastern United States



<https://esa.un.org/unpd/wpp/Download/Standard/Population/>

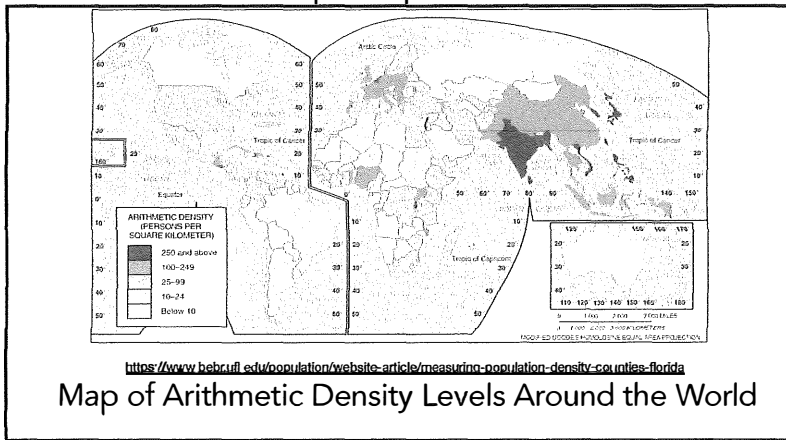
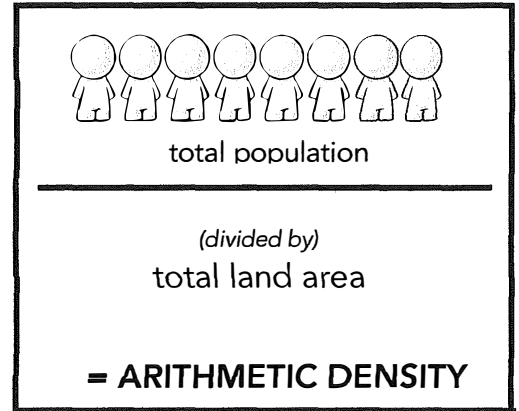
for more information, see textbook pages 66-67

## Population Density

*Population density is the pressure a population exerts on the land.*

**ARITHMETIC DENSITY:** *Number of people living in a given unit of land*

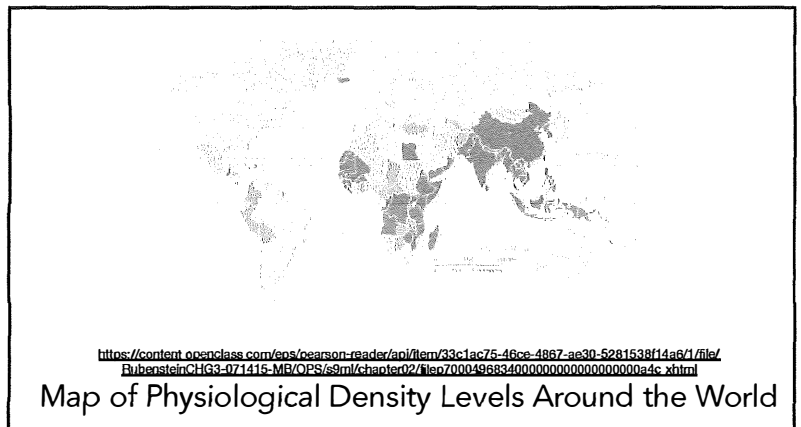
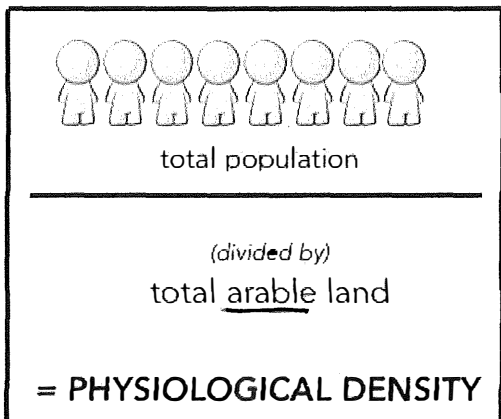
- Does not take into account that some land may be unusable (not arable)
- Ex: Egypt has an arithmetic density of 7 people per sq. km, but much of the land isn't really usable so people are concentrated in the Nile Delta area (density there of **3,900** per sq km!)



**AGRICULTURAL DENSITY:**  
*# of famers per unit of arable land, will be lower in areas where there is more commercial ag.*

**PHYSIOLOGICAL DENSITY:** *Number of people per unit of arable land*

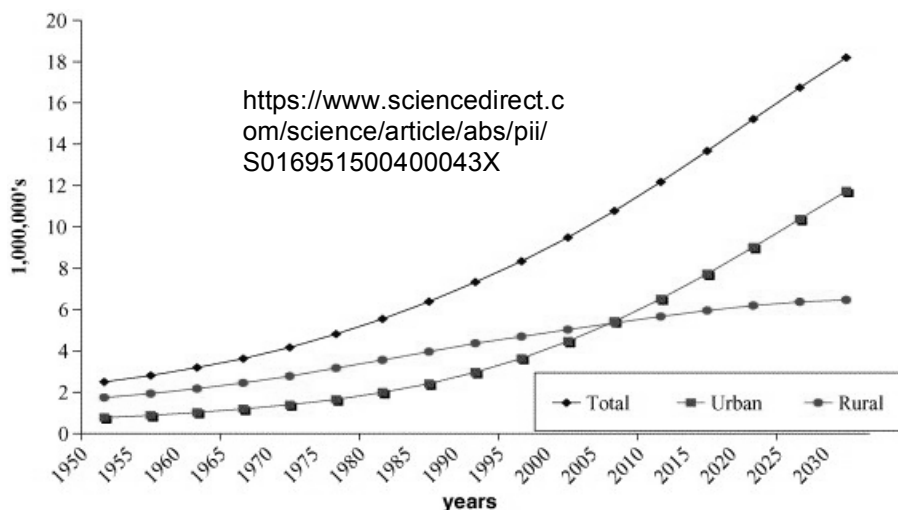
- **Arable land:** land that can be used for agriculture
- Takes into account that some land might be inhospitable
- Gives us insight into the actual pressure on land (see Egypt example above)



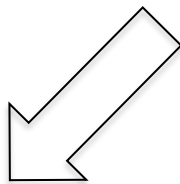
For more info, see pages 66-67 in your textbook.

# Consequences of Population Distribution

- Population distribution is the way that people are clustered across the globe
- Population is mainly clustered in cities
- 55% of the world's population now lives in urban areas

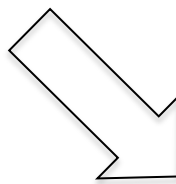


## High Rural-Urban Migration Leads To:



### Social and Economic Consequences:

- Ageing population in rural areas as young people go to cities for jobs leads to high age-dependency ratio
- Especially in LDCs, lack of housing compared to rate of migration leads to the creation of slums and shantytowns
- Diseases are easily spread in urban areas



### Environmental Consequences:

- Large population density puts a strain on environmental resources in the area
- **Carrying Capacity** is the largest population an area can support
- High concentration of manufacturing plants and other buildings leads to large amounts of pollution and water contamination



# Population pyramids

**Definition:** a bar graph that shows the age and gender composition of a population; helps us see population change in a country

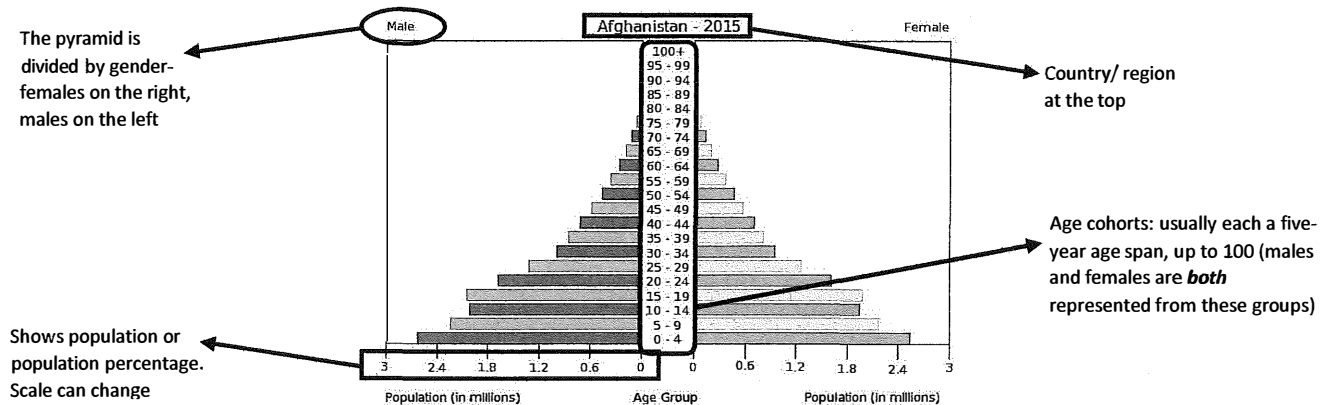


Image source: [http://www.randalolson.com/wp-content/uploads/united\\_states\\_population\\_pyramid.jpg](http://www.randalolson.com/wp-content/uploads/united_states_population_pyramid.jpg)

## Pyramids at different geographic scales

Country scale

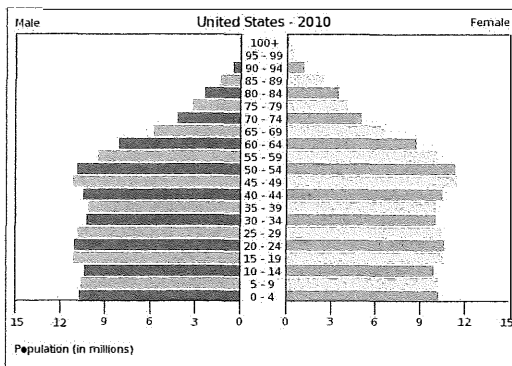
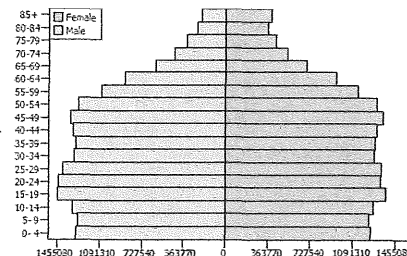


Image source: [http://www.randalolson.com/wp-content/uploads/united\\_states\\_population\\_pyramid.jpg](http://www.randalolson.com/wp-content/uploads/united_states_population_pyramid.jpg)

State scale

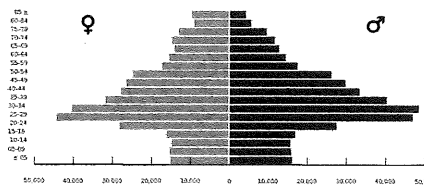
California 2010



[http://proximityone.com/chartgraphics/pp06000\\_2010\\_001.png](http://proximityone.com/chartgraphics/pp06000_2010_001.png)

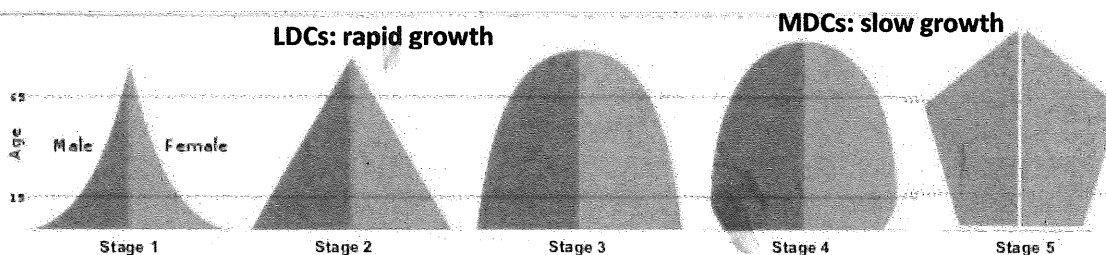
City scale

San Francisco 2009



- The scale of the pyramid can change what it looks like
- The U.S. and CA have very similar pop. pyramids
- San Francisco's pop. Pyramid is different from the other two

## Population Pyramids and the DTM



For more information see pages 73-75 in your textbook

# Population Dynamics

Looks at how the population of a region, a country or even the world changes.

3 factors contribute to population growth and decline

## Fertility

Fertility is measured using **Crude Birth Rate(CBR)**.  
**Crude Birth Rate-** is the number of births per 1000 people per year.

## Migration

**Migration-** the movement of people to a new area. Doesnt change the total number of people on the planet but does change the people living in a specific area.

## Mortality

Mortality is measured using **Crude Death Rate(CDR)**.  
**Crude Death Rate-** is the number of deaths per 1000 people per year.

2 factors increase the population of a country

2 factors decrease the population of a country

### Birth

**Total fertility rate(TFR)-** average number of kids a woman will have in her life

### Immigration

- Is the movement of a person into a country
- Usually into a MDC.

### Emmigration

- Is the movement of a person out of a country
- Usually out of a LDC

### Death

**Infant Mortality Rate-** number of deaths under 1 year per 1000 people

## Rate of natural increase

**Rate of natural increase(RNI)-** the percentage of population growth in an area excluding migration

$$RNI = (CBR - CDR) / 10$$

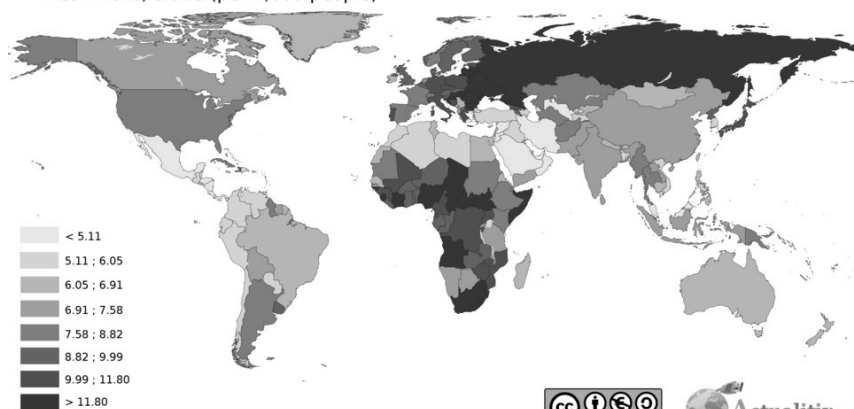
The RNI is High in LDCs due to their CBR being high and Low in MDCs due to their CDR being high and CBR being low

**Doubling time-** amount of time it will take for a population to double in size.

$$\text{Doubling time} = 71 / RNI$$

**Disclaimer\*:** Sometimes the CDR is not very accurate because it is not age based. You wont be able to tell if high rates are due to bad living conditions or a aged population

Death rate, crude (per 1,000 people)



Source : The World Bank - 2013  
 Copyright © Actualitix.com All rights reserved



## Cultural, Political, and Economic factors influencing population dynamics

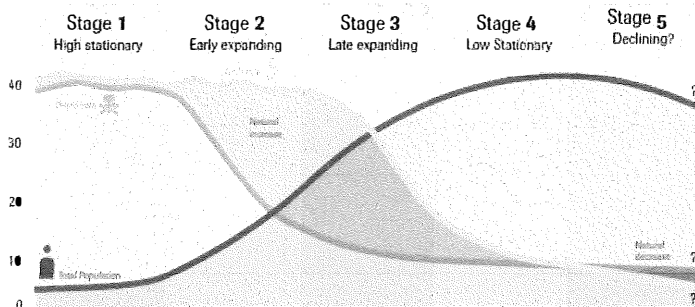
The population dynamics of any country is based on their position in the Demographic Transition Model. Countries in the **Second Stage** tend to be more agriculture focused with a less educated workforce, leading to a **high TFR and somewhat low CDR**. Countries in the **4-5th stage** tend to be well developed and educated leading to a **low TFR and high CDR** because of the ageing population.

Look at pages 67-72 for more information. Also Khan Academy has a very detailed video

## Demographic Transition Model (DTM)

**Demographic Transition Model-** shows population change over time.

- Based off population trends in Europe
- Observed by Warren Thompson
- Relates changes in RNI to social change as a result of urbanization and industrialization
- Describes a shift from high birth and death rates to low birth and death rates over time



### **Limitations:**

- Doesn't take migration into account
- partial picture of population change
- low predictive value
- not directly applicable to developing countries
- the times are based on the Western European experience

### **Stage 1: Preindustrial:** (until 1750)

**Birth Rate: High** because..... **Natural increase or decrease:**

- children needed for farming
- children die at an early age
- no family planning

**Death Rate: High:** because..... **Example Countries:**

- disease
- famine
- poor medical knowledge
- no example countries
- Amazon Tribe Basin

### **Stage 2: Early Industrial:** (1750-1880)

**Birth Rate: High** because.... **Natural increase or decrease:**

- children needed for farming
- children die at an early age
- no family planning

**Death Rate: Falls Rapidly** because.. **Example Countries:**

- contagious diseases
- but improvements in
  - medical care
  - water supply
  - sanitation
- Egypt
- Kenya
- Ethopia

### **Stage 3: Late Industrial:** (1880-1970)

**Birth Rate: Falling** because... **Natural increase or decrease:**

- improved medical care
- improved diet
- industrialized

**Death Rate: Falls more slowly** because.. **Example Countries:**

- contagious diseases
- but improvements in
  - medical care
  - water supply
  - sanitation
- Brazil
- India

### **Stage 4: Post Industrial:** (1970-Present)

**Birth Rate: Low** because... **Natural increase or decrease:**

- family planning
- good health
- improving status of women
- later marriages

**Death Rate: Low** because.. **Example Countries:**

- chronic diseases
- better health care
- reliable food supply
- USA
- France
- UK

### **Stage 5: Declining:** (Future)

**Birth Rate: Very Low** because.. **Death Rate: Low** because.. **Natural increase or decrease:** **Example Countries:**

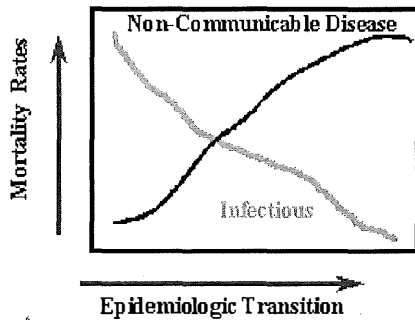
- family planning
- good health
- improving status of women
- later marriages
- chronic diseases
- better health care
- reliable food supply
- slow decrease
- Germany
- Russia
- Japan

# The Epidemiological Transition

The shift from infectious diseases to chronic diseases.

- Aligns with the demographic transition model (DTM).
  - Shows most common causes of death in each stage of the DTM.
  - As a country develops more, the main cause of death shifts towards chronic diseases.
- The main cause of death in LDCs are due to infectious diseases
- The main cause of death in MDCs are due to chronic diseases

## Epidemiological Transition Model



## Demographic Transition Model

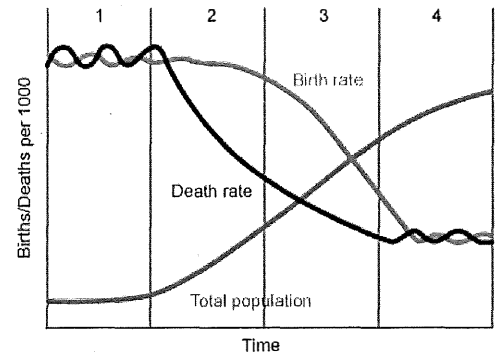


Image 1: (Epidemiological Model) <https://www.slideshare.net/kdjw/epidemiological-transition>

Image 2: (DTM Model) [http://papp.iussp.org/sessions/papp101\\_s01/PAPP101\\_s01\\_090\\_010.html](http://papp.iussp.org/sessions/papp101_s01/PAPP101_s01_090_010.html)

Infectious Diseases	Chronic Diseases
<ul style="list-style-type: none"> <li>-Spread from human to human</li> <li>-Often temporary</li> <li>-Caused by bacteria and/or viruses</li> <li>-Prominent in LDCs</li> <li>-More common due to poor sanitary regulations</li> <li>-Occurs in stages 1 and 2 of the DTM</li> <li>-Examples include measles and influenza</li> </ul>	<ul style="list-style-type: none"> <li>-Is not spread from human to human, instead develops over time as the body becomes weaker</li> <li>-Prominent in MDCs</li> <li>-More common due to higher life expectancy</li> <li>-Can not be cured or prevented usually</li> <li>-Examples include multiple sclerosis and arthritis.</li> </ul>

### Real World Examples

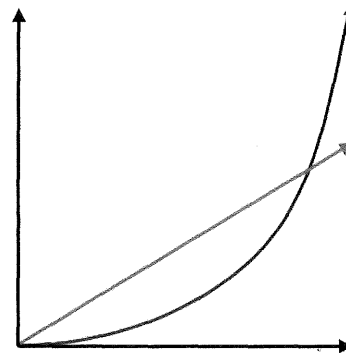
- According to the World Health Organization, in 2015 about 429,000 people died from malaria, an infectious disease. 91% of the reported deaths came from Sub-Saharan Africa, which consists of many LDCs.
- According to the CDC, every year about 610,000 people die to heart disease, a chronic disease, in the United States, which is an MDC.

# Malthusian Theory

## THOMAS MALTHUS

*English Economist*

- Population growth leads to poverty and misery.
- Environmental Determinist
- Did not consider technological advancements
- **Positive Checks**– Reduce population; famine, disease, etc.
- **Preventative Checks**– Actions to prevent population growth; postponing marriage, less sex, etc.



According to Malthus, population would outgrow food production.

Food grew arithmetically. Population grew geometrically.

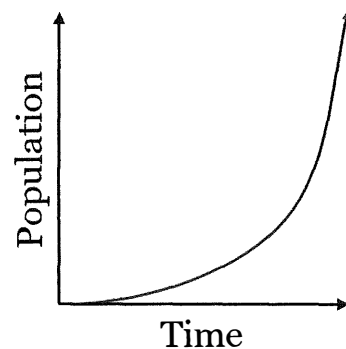
## NEO-MALTHUSIANS

*People who share similar ideas to Malthus*

- World space and resources were limited, but the environment was not the determinant.
- **Carrying Capacity**– The maximum number of people that can live on Earth comfortably
- Want strict population control

### J-CURVE

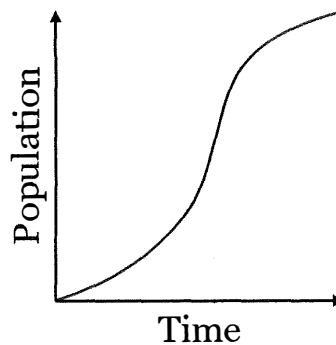
Exponential growth of population over time –this is what Malthus saw



## ESTER BOSERUP

*Danish Economist & Main Critic of Malthus*

- As the population grows, there would be more technologies to produce more food.
- Possibilist
- Argued food production could be increased



### S-CURVE

Population growth begins to level out due to limited resources.

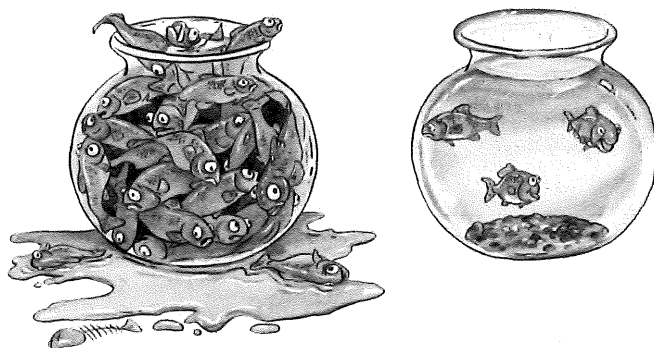
Malthus thought this would happen due to checks - better to have preventative ones!

## CORNUCOPIANS

*“Necessity is the mother of invention.”*

- **Cornucopian Theory**– Humans can innovate ways to expand the food supply
- People are a valuable resource.

The carrying capacity in the fish bowl is 3 fish.  
<http://smcarthur.com/tccset/wp-content/uploads/2015/08/Carrying-Capacity-Image.jpg>



# Population Policies

Sometimes countries will shift population policies over time, for example S. Korea used to have an anti-natalist policy because TFR was above 6 in the 1970s, but now that their TFR is 1.05 they have a pro-natalist policy

## Pro-Natalists (MDC's)

<p><b>What</b></p> <ul style="list-style-type: none"> <li>• Increase Birth Rates /Total Fertility Rates</li> </ul>	<p><b>Why</b></p> <ul style="list-style-type: none"> <li>• Low Population</li> <li>• Aging population</li> <li>• Low fertility rates</li> <li>• Decrease of birth rates</li> </ul> <p><b>Potential Policies</b></p> <ul style="list-style-type: none"> <li>• Banning sales of contraceptives</li> <li>• Antiabortion laws</li> <li>• Tax credits</li> <li>• Low cost childcare</li> <li>• Discounted baby needs (Clothes, diapers, food, etc.)</li> <li>• Workers paid during maternity/parental leave</li> </ul>
<p><b>When</b></p> <ul style="list-style-type: none"> <li>• DTM Stages, 4-5</li> </ul>	
<p><b>Problems</b></p> <ul style="list-style-type: none"> <li>• Difficult to adjust social norms</li> <li>• Infertile mothers can't get benefits</li> </ul>	
<p><b>Country Examples</b></p> <ul style="list-style-type: none"> <li>• France</li> <li>• Germany</li> <li>• Japan</li> <li>• South Korea</li> <li>• Russia</li> </ul>	



<https://icvisa.info/china-offers-to-remove-tlds-for-> Mother embraces newborn

## Anti-Natalists (LDC's)

<p><b>What</b></p> <ul style="list-style-type: none"> <li>• Decrease Birth Rates /Total Fertility Rates</li> </ul>	<p><b>Why</b></p> <ul style="list-style-type: none"> <li>• Low resources available for everyone</li> <li>• Not enough space for settlement</li> </ul> <p><b>Potential Policies</b></p> <ul style="list-style-type: none"> <li>• Cheaper sales of contraceptives</li> <li>• Tax penalties</li> <li>• Family education/planning programs</li> <li>• Minimum age for marriage</li> <li>• <b>Promoting education/jobs for women</b></li> </ul>
<p><b>When</b></p> <ul style="list-style-type: none"> <li>• DTM Stage 2-3</li> </ul>	
<p><b>Problems</b></p> <ul style="list-style-type: none"> <li>• Imbalance of male to female ratio</li> <li>• Difficult to change societal norms</li> </ul>	
<p><b>Country Examples</b></p> <ul style="list-style-type: none"> <li>• China</li> <li>• India</li> <li>• Kenya</li> <li>• Nigeria</li> </ul>	



Babies not wanted

<https://www.pinterest.com/pin/186617978286312758/>

**Eugenic**  
Steering of (pro and anti) natalist policies for distinctive groups (Example: Nazis Germany)

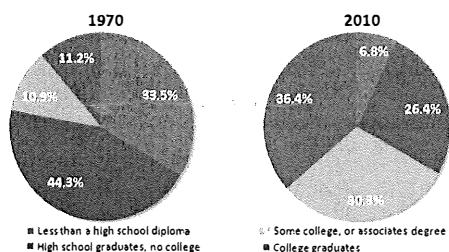
Note: Countries could also look towards encouraging immigration if they want to increase their population instead of relying on pronatalist policies, but sometimes don't due to fear of cultural change when different groups enter the country

# Women and Population

## Education

- Women typically have much less access to education than men
- This trend is strongest in LDCs, and among impoverished areas
  - Ex: Somalia- 95% of poorest females aged 7-16 have never attended school
- In recent decades, rates of higher education in women have increased (mainly in MDCs)
- Increased education leads to decreased fertility rates but increased participation in the work force

Percent distribution of women in civilian labor force, aged 25 to 64 years, by educational attainment, 1970 and 2010



Source: U.S. Bureau of Labor Statistics [www.bls.gov](http://www.bls.gov)

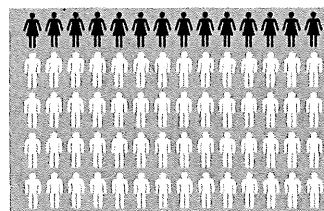
Source: <https://www.bls.gov/spotlight/2011/women/>

## Economic Roles

- Women have uneven participation in different sectors of the economy
  - Concentrated in the service sector, in careers such as teaching and health care
  - Underrepresented in jobs requiring higher education, such as STEM jobs including architecture or engineering
- **Gender Wage Gap**- a global trend in which women are paid less than men
  - Ex: In the United States, women earned just 79 cents for every dollar men made in 2019.

## Political Roles

- Women participate less in political affairs than men
  - Ex: 2016- only 22.8% of parliament members were female



Source: <http://www.cawp.rutgers.edu/facts>

- Similar to education and economy, this significant gap has been lessened in recent decades (mainly in MDCs)
  - More educated women leads to greater political participation

## Fertility

- **Fertility**- the births within a given population
- Lower in MDCs
  - Women's increased education and participation in politics and the economy cause them to wait to have children
  - Ex: Japan- fertility rates are decreasing as more women pursue careers rather than have children
- Higher in LDCs
  - Earlier marriage and children due to lack of education or career
  - Ex: Niger- highest total fertility rate of 6.62 (almost 7 children per woman)
- Gender roles provide many women with a low status, and they do not have access to contraceptives or the opportunity for family planning

## Mortality

- **Mortality**- the deaths within a given population
- Educated women have a lower mortality rate, as they can pursue careers to financially support themselves and have access to healthcare
  - Ex: Sub-Saharan Africa- maternal deaths would be reduced by 70% if all women had a primary education
- Women are often responsible for the nutrition of the family, especially the children
- Women's prenatal health impacts Infant Mortality Rates
  - Better prenatal healthcare = lower IMR

# Aging Population

(see pages 71-75 in book)

## Death Rates Decreasing

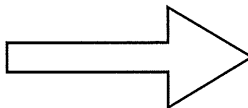
- ☆ Better Healthcare
- ☆ Improved medical technology
- ☆ Less infectious diseases

## Effects

- ☆ Not as many people in the workforce
- ☆ Governments push pronatalist policies to maintain population
- ☆ Money spent on healthcare increases
- ☆ Services for elderly increase ex: retirement homes
- ☆ Politicians become conservative to appeal to elderly

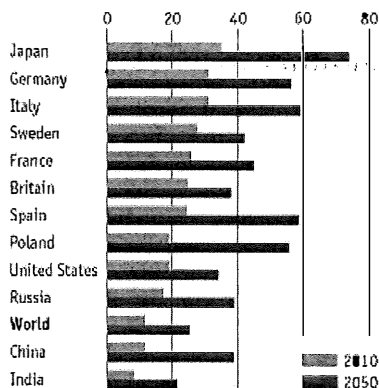
## Birth Rates Decreasing

- ★ Education of women
- ★ Less desire for large families
- ★ Increased use of contraception
- ★ Rising cost of having/raising children



### Old-age dependency ratios

Number of people aged 65 and over  
As % of labour force (aged 15-64), forecasts



Source: European Commission

## Age-dependency Ratio

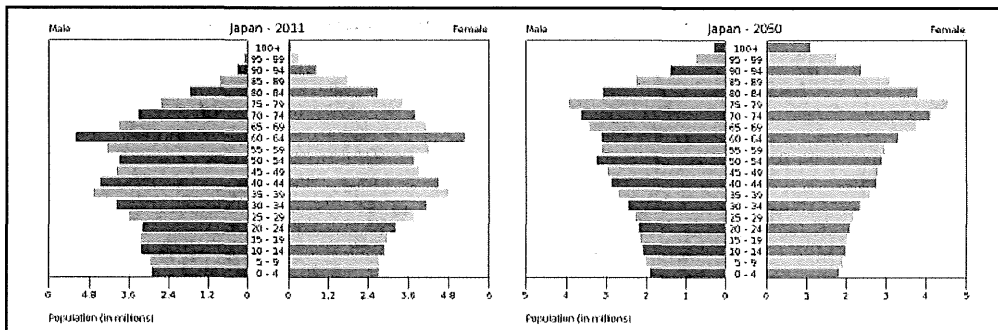
Number of people under 15 and over 65 ÷ Number of people between 15 and 65 (working age)

<https://ibdpgeographyrevision.weebly.com/populations-in-transition.html>  
<https://www.slideshare.net/aldelaitre/population-pyramids-exercises>

## Blue Zones

Areas that have populations with substantially long lives

- ☆ Okinawa, Japan
- ☆ Loma Linda, California
- ☆ Ikaria, Greece



Japan is projected to have 40% of its population to be 65 years or older by 2050.

Upside down pyramid (2050 Japan)- depicts a heavily old-age population



# Causes Of Migration

<p><b><u>Push Factors:</u></b></p> <p>Negative conditions that push people away and encourage migration.</p>
<p><b>Ex:</b> natural disasters, lack of jobs, lack of transportation, war, poverty.</p>
<p><b>Real life examples:</b></p> <p>Earthquake disaster in China</p> <p>Famine in Sudan</p>


<p><b><u>Pull factors:</u></b></p> <p>Positive conditions of a place that attract migrants.</p>
<p><b>Ex:</b> lots of job opportunities, lots of transportation, religious freedom.</p>
<p><b>Real life examples:</b></p> <p>Religious freedom in U.S</p> <p>Lots of job opportunities in UK</p>


[https://www.google.com/search?q=www.emigration&safe=active&client=safari&channel=ipad\\_bm&source=lnms&tbn=isch&sa=X&ved=2ahUKFwjBuM-ijMjoAhXPVcoKHYagDWkO\\_AUoA3oECAwOBo&biw=899&bih=1208#imgrc=ijyo7edcqERsyM](https://www.google.com/search?q=www.emigration&safe=active&client=safari&channel=ipad_bm&source=lnms&tbn=isch&sa=X&ved=2ahUKFwjBuM-ijMjoAhXPVcoKHYagDWkO_AUoA3oECAwOBo&biw=899&bih=1208#imgrc=ijyo7edcqERsyM)

**Migration**- the relocation of people to a new place for long periods of time

**Voluntary migration**- migration that occurs by choice  
(every voluntary migration is a combination of push and pull factors)

**Forced migration**- when migration of people occurs **not by choice** but is insisted upon by some entity  
(forced migration it is all push factors)

For more information look in your textbook at pages 81-83!

## Forced and Voluntary Migration

**Migration**=permanent or long term relocation of a group or of a person from one place to another place.

**Migrant(s)**=the person or group that relocate from one place to another place.

**Emigration**=the departure from point A, out-migration.

**Forced Migration**=a group or a person has **no choice** but to relocate, **no choice** in how they leave or the conditions of, and **no choice** of where they are going.

**Human Trafficking**-women and children forced to move into and work in exploitative conditions such as prostitution with violence and force.

•Each year there are 2 million-4 million victims of human trafficking.



•Many victims are from Southeast Asia  
•Common destinations include but are not limited to, Cambodia, China, Japan, Thailand, and Malaysia.

<https://www.pbs.org/wnet/wideangle/uncategorized/the-business-of-human-trafficking-trafficking-routes/1428/>

**Asylum**=A granting of protection from a country to a refugee fleeing persecution.

**Asylum Seekers**-A person who has left their country over fear of persecution and hopes to be granted status as a refugee.

- an airport, a border, an embassy are all places to apply for asylum
- a judge will decide on granting asylum

**Refugees**-refugees are people who flee their country and arrive in another country over fear of safety or persecution.

•Ex: Breakup of Yugoslavia led to many people from Bosnia and Herzegovina fleeing as refugees due to war and very dangerous conditions.

**IDPs**-internally displaced persons, people who are forced out of one part of their country to another part of their country

•Ex: Sudan has about 5 million IDPs due to a civil war.

**Voluntary Migration**=the **chosen** permanent or long term relocation of a group or of a person from one place to another place. Most migration is voluntary and Ravenstein's Laws of Migration (proposed in 1885 by E.G. Ravenstein) are often applicable.

### Ravenstein's Laws of Migration:

- 1-Most migrants travel short distances and do not cross international borders.
- 2-Migration to and between cities and towns creates gaps filled by migrants that move from more distant places.
- 3-There are *two* processes: dispersion (departure) and absorption (arrival)
- 4-Counterflows result from migration flows
- 5-Long distance migration is often **RURAL to URBAN**
- 6-People that live in **urban** places are less likely to migrate than those who live in **rural** places.
- 7-Men are **more** likely to migrate internationally than women who are more likely to migrate within their country

Most people who migrate are *unmarried* and about *25 years old*.

- Many people may *voluntarily* migrate due to natural disasters, lack of jobs and economic stability in their country or town. (push factors)
- Job opportunity, stable government, and freedom of religion can be reasons for wanting to *voluntarily* migrate. (pull factors)

TEXTBOOK PAGES: 81-91

## •Effects of Migration•

❖ **Unauthorized Immigrant:** People who come to a country, but either don't enter or don't remain legally; most often they enter LEGALLY with a temporary visa, but remain after their visa expires.

★ Also known as **undocumented** or **illegal** immigrants

❖ **Brain Drain:** The emigration of people who are considered *skilled workers*

★ Loss of skilled workers and therefore innovations and ideas in an area; Harms the economy of the home/ source country

★ *Can help* the country *if* the skilled workers return to the home country with new skills

➤ Occurs most often in Less Developed Countries(LDCs)



<https://www.businessmagazinegainesville.com/cure-brain-drain-headache/>

❖ **Transnationalism:** The process of immigrants developing ties to more than one country

★ Shows that migration demonstrates a system of circulation

★ Migration is not just one way, there are counterflows

★ Migration is part of the reason for the diffusion of different cultural ideas. For example, English spread in part through settler colonies established by England.

★ Historical ties via migration can impact modern political ties between governments, business connections, etc.

❖ **Remittances:** The money, goods, or services sent by immigrants to their home countries

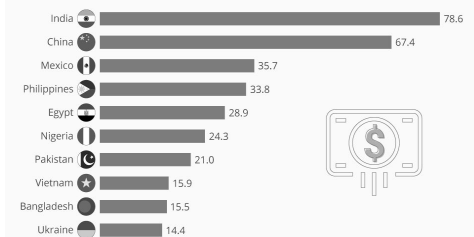
★ Example of transnationalism

★ Creates a strong positive impact in the migrant's home country (**Ex:** some of rural Mexico's communities are supported **solely** by the remittances)

➤ Sending countries are mostly More Developed Countries(MDCs), while most of the receiving countries are LDCs

The World's Top Remittance Recipients

Top-10 remittance-receiving countries in 2018 (billion U.S. dollars)



Source: KNOWMAD via World Bank

statista

<https://www.statista.com/chart/20166/top-10-remittance-receiving-countries/>

# INTRODUCTION TO CULTURE

Culture comprises the shared practices, technologies, attitudes, and behaviors transmitted by a society.

**Globalization:** The process that interconnects the world's people, places, and institutions.

- Ex. Raisins in our trail mix are from the U.S., Chile, Argentina, South Africa, and Mexico
- Ex. Tourism in Costa Rica exceeding 900 million people worldwide in 2007



**Cultural Traits:**

- Food Preferences
  - ◆ Ex. In Hinduism, the cow is a sacred animal, therefore beef is not consumed
- Architecture
  - ◆ Ex. The Berlin Palace
- Land Use
  - ◆ Ex. Making highways for quicker transport
- Language
  - ◆ Ex. African languages based on their previous colonizers
- Religion
  - ◆ Ex. Belonging to a specific religion (Christianity, Judaism, etc.)

[https://en.wikipedia.org/wiki/Berlin\\_Palace](https://en.wikipedia.org/wiki/Berlin_Palace)



[https://livejapan.com/en/in-tokyo/in-pref-saitama/in-saitama\\_suburbs/article-a0002443/](https://livejapan.com/en/in-tokyo/in-pref-saitama/in-saitama_suburbs/article-a0002443/)

**Cultural Relativism**

vs.

**Ethnocentrism**

<p><b>Cultural Relativism:</b> The idea that a persons' beliefs and activities should be understood in terms of that persons' own culture.</p> <ul style="list-style-type: none"> <li>→ A typical breakfast in Turkey can consist of fish soup and vegetables</li> </ul>	<p><b>Ethnocentrism:</b> The belief that your own culture is superior.</p> <ul style="list-style-type: none"> <li>→ An immigrant to America saying the French culture is much better than the American culture</li> </ul>
--	---

<p><b>Homogenization Thesis:</b> Globalization makes cultures more alike.</p> <ul style="list-style-type: none"> <li>→ <b>Placelessness:</b> Loss of unique characteristics of a place.</li> <li>→ Ex. A subdivision where every house is the same</li> <li>→ <b>Americanization:</b> American culture being spread across the world.</li> <li>→ Ex. Starbucks spreading worldwide</li> </ul>	<p><b>Polarization Thesis:</b> Globalization causes ethnocentrism and separation.</p> <ul style="list-style-type: none"> <li>→ Creates a heightened sense of sociocultural belonging</li> <li>→ Creates war and struggle over identity and differences</li> <li>→ Ex. 2003 invasion of Iraq</li> </ul>	<p><b>Glocalization Thesis:</b> Global and local cultures interact and change due to the interaction.</p> <ul style="list-style-type: none"> <li>→ Can occur because of neolocalism</li> <li>→ <b>Neolocalism:</b> A renewed interest in keeping a places' uniqueness</li> <li>→ Ex. McDonald's changing it's menu india to not serve cow meat</li> </ul>
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More information on pages 36-44 in the textbook

# Language on Cultural Landscapes

## CULTURAL LANDSCAPE:

The imprint of past residents' activities and practices on a natural landscape

Languages are used in landscapes according to what language the residents use to communicate. (ex: In China, Chinese would be used)



<https://www.alamy.com/stock-photo-a-street-sign-in-shanghai-china-for-foreign-tourists-not-used-to-the-18503036.html>

## WHERE DO WE SEE LANGUAGE IMPRINTS?

- Storefronts
- Street signs
- Billboards
- Airports
- Menus

## PURPOSES OF LINGUISTIC LANDSCAPES:

- Send messages
- Discriminate
- Convey political messages
- Inform
- Advertise

## EXAMPLE OF LINGUISTIC LANDSCAPES WITH MAJOR LANGUAGES:

### CHINESE



### ENGLISH



<https://www.pinterest.com/pin/551479916846327090/?lp=true>

### SPANISH



<https://burgerlad.com/mcdonalds-spain-menu-prices/>

<https://commoncentssolutions.wordpress.com/2011/02/04/badabababa-%E6%88%91%E5%B0%B1%E5%96%9C%E6%AC%A2%E5%BC%81/>

\*See textbook pages 98-110 for more info





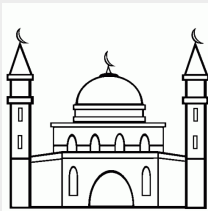







# Religion on the Cultural Landscape

Textbook 152-153

Ways to recognize major religions on the cultural landscape:

- Sacred sites: Places that hold significance for members of a religion
- Religious architecture: Many places of worship from different religions will have unique architectural styles
- Symbols: Each major religion has one or more symbol that is easily attributed to that religion

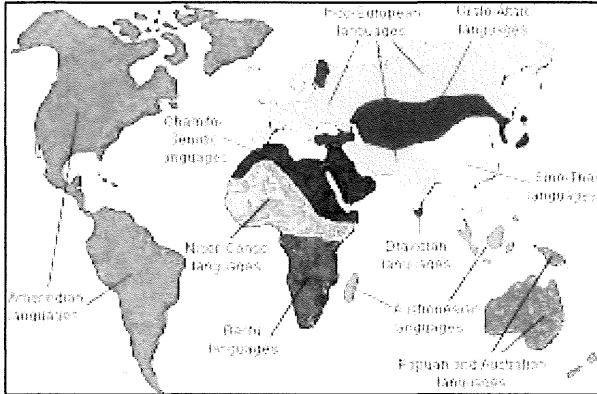
Note: the cultural landscape can **change over time** as different groups migrate in and out of the area and leave their own imprints. This is called **sequent occupancy**. An example is Hagia Sophia which was a Greek Orthodox cathedral, then a mosque, and now a museum

Religion	Sacred Site(s)	Architecture	Symbol	Place of Worship
<b>Christianity</b>	Jerusalem		 Cross	Church, Cathedral
<b>Judaism</b>	Temple Mount, Israel		 Star of David	Synagogue, Temple
<b>Islam</b>	Mecca, Medina		 Star and Crescent	Mosque
<b>Hinduism</b>	Varanasi, Allahabad		 Om	Temple, Mandir
<b>Buddhism</b>	Bodh Gaya		 Dharmachakra	Temple
<b>Sikhism</b>	Golden Temple, Bangla Sahib Gurudwara		 Khanda	Gurudwara

## Patterns Related to Language

**Language** - system of communication based on symbols that have agreed upon meanings

**Language Family** - a collection of languages that share a common but distant ancestor



### Lingua Franca –

A language used by people who don't speak the same language to communicate for trade or business.

**English is considered today's lingua franca because:**

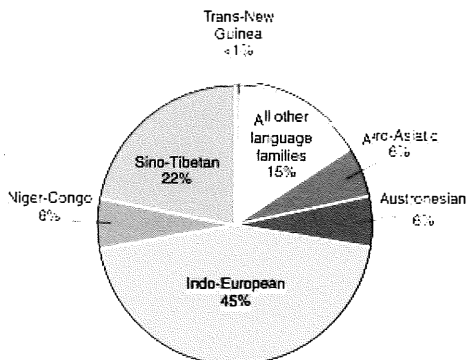
- British colonization
- Majority of internet is in English
- Computer programming in English
- Spread of English films, music, and more

Swahili is a lingua franca widely used in East Africa

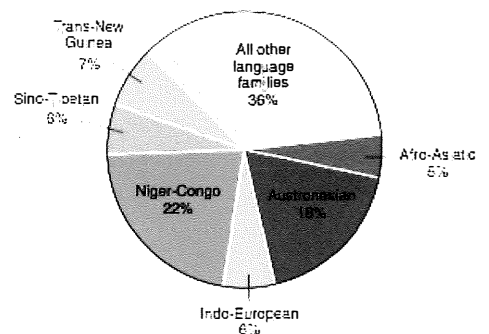
<p><b>Indo-European</b></p>	<ul style="list-style-type: none"> <li>• Family with largest number of speakers</li> <li>• Example: English &amp; Hindi</li> </ul>	
<p><b>Sino-Tibetan</b></p>	<ul style="list-style-type: none"> <li>• Has the language with largest amount of speakers (Mandarin Chinese)</li> <li>• Examples: Burmese &amp; Mandarin</li> </ul>	
<p><b>Afro-Asiatic</b></p>	<ul style="list-style-type: none"> <li>• Longest recorded history of any language family</li> <li>• Examples: Arabic &amp; Hebrew</li> </ul>	
<p><b>Niger-Congo</b></p>	<ul style="list-style-type: none"> <li>• Family with the highest number of languages</li> <li>• Examples: Yoruba &amp; Zulu</li> </ul>	

Maps are from <http://www.geocurrents.info/gc-maps/geocurrents-maps-by-topic/geocurrents-maps-of-languages-language-families>

This graph shows the percentage of languages in each family



This graph shows the percentage of speakers in each family



Graphs from [https://issuu.com/wiley\\_publishing/docs/greiner\\_visualizing\\_human\\_geography/120](https://issuu.com/wiley_publishing/docs/greiner_visualizing_human_geography/120)

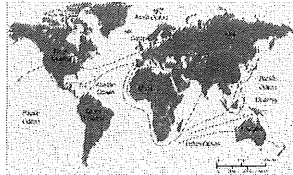
# Patterns Related to Religion

**Universalizing religions** have universal (thus the name) appeal and SEEK converts, this impacts their patterns because they typically grow at a faster rate and spread more geographically

**Ethnic religions** appeal to a particular group in a specific area, this impacts their patterns because they usually only grow due to childbirths, they also only are seen outside their hearths due to relocation diffusion

## Christianity:

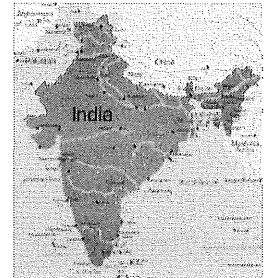
- 2.3 billion followers
- Majority Worldwide
- Americas- 800 million followers
- Europe-565 million followers'
- Universalizing



<https://www.pinterest.com/pin/56400553303729129/>

## Hinduism:

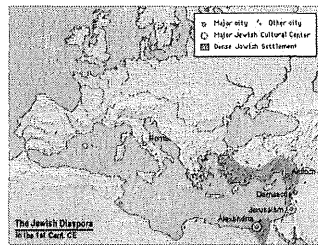
- 1.15 billion
- Located in India, United States, United Kingdom
- India – 90% of all followers
- Ethnic religion



<http://nextcourier.com/hearth-of-hinduism/hearth-of-hinduism-religions-ralph-and-chandlers-study-of-religions/>

## Judaism:

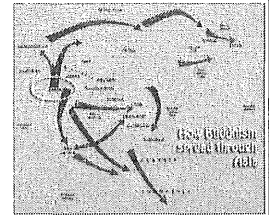
- 13 million followers
- Israel- 6 million Jews
- U.S. -5.5 million Jews
- Ethnic religion



<https://www.pinterest.com/pin/56400553303756240/>

## Buddhism:

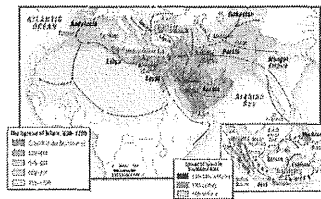
- 495 million followers
- Southeast Asia
- Thailand - 95% Buddhist
- Cambodia – 90% Buddhist
- Universalizing Religion



<https://www.ancient.eu/buddhism/>

## Islam:

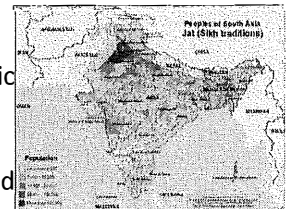
- 1/5 of world pop.
- North Africa, Middle East, and South Asia
- Indonesia - 200 million followers
- Pakistan – 170 million followers
- Universalizing



<http://coppercartcafe.com/islam-hearth/islam-hearth-islamic-timeline-sutori/>

## Sikhism:

- 23 million followers
- Northern India- 90% of all Sikhs
- Canada – 500,000 followers
- Universalizing
- Often considered a syncretic faith by those outside the religion due to shared elements with Hinduism and Islam



<https://prezi.com/jf3x8iycfpik/sikhism/>

- Islam is the fastest growing religion
- 7% of the world is atheist

- One thing impacting Buddhism is that it has the lowest TFR of any of the major religions at 1.6 this is because some Buddhists practice celibacy. In contrast, the TFR for Muslims is 2.9 and for Christians is 2.6. Although you aren't "born into" universalizing religions if your family is of that faith you are likely to adopt that faith as well.

For more statistics on religion go to [www.pewforum.org](http://www.pewforum.org)

Textbook pages, 130-137



## The Spread of Ideas: Cultural Diffusion

- What is cultural diffusion?
  - Diffusion is the spread of an epidemic, innovation, or idea throughout space and time.

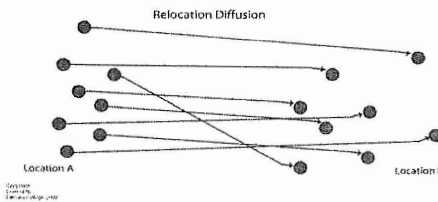
**Absorbing barriers-** an obstacle which completely stops an idea from diffusion  
**Permeable barriers-** obstacle which slows down diffusion without stopping  
**Independent Invention-** idea created without diffusion

### Expansion Diffusion:

- Includes all diffusion except relocation
- Diffusion which results in a change of numbers (increasing)

### Relocation Diffusion:

- Phenomena is spread across space
- Population of people = same
- Ex. Migration
- Not expansion diffusion

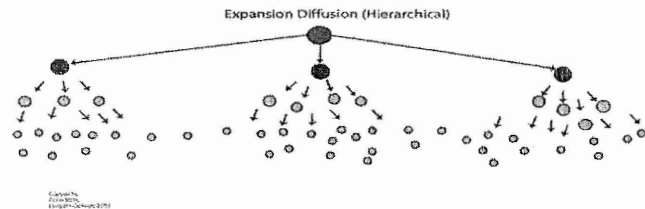


[https://www.google.com/search?q=relocation+diffusion&safe=active&source=lnms&tbn=isch&sa=X&ved=0ahUKewieopyUKYHaAhXjwVikKHYqaAHwQ\\_AUICigB&biw=1366&bih=626#imgrc=4NNP MOMQZexpM](https://www.google.com/search?q=relocation+diffusion&safe=active&source=lnms&tbn=isch&sa=X&ved=0ahUKewieopyUKYHaAhXjwVikKHYqaAHwQ_AUICigB&biw=1366&bih=626#imgrc=4NNP MOMQZexpM)

The diagram shows the dots moving from 'Location A' to 'B', note that the number of dots is same

### Hierarchical Diffusion:

- Spreads in a rank-order
- From highest to lowest rank (this could be social ranks, or ranks based on size of population)
- This is how most of pop culture spreads
- Spreads based on areas with similar characteristics
- Ex. Fashion brands start in Paris, skips over smaller cities like Vatican, and goes to another big city like New York and eventually arrives in Louisville



[https://www.google.com/search?safe=active&biw=1366&bih=626&tbn=isch&sa=1&ei=UEOOWtORicf15gKo4J6oBQ&q=hierarchical+diffusion&oq=hi&gs\\_l=psy-ab.3.0.0i67k116j0l2j0i67k112.162738.163818.0.164494.3.3.0.0.0.148.260.0j2.3.0....0...1c.1.64.psy-ab.0.2.258.0...110.Fc5WmRnWKmE](https://www.google.com/search?safe=active&biw=1366&bih=626&tbn=isch&sa=1&ei=UEOOWtORicf15gKo4J6oBQ&q=hierarchical+diffusion&oq=hi&gs_l=psy-ab.3.0.0i67k116j0l2j0i67k112.162738.163818.0.164494.3.3.0.0.0.148.260.0j2.3.0....0...1c.1.64.psy-ab.0.2.258.0...110.Fc5WmRnWKmE)

### Reverse Hierarchical:

- Opposite of hierarchical
- Spreads from lowest to highest rank

### Stimulus Diffusion:

- Spreading of idea prompts new ideas
- Ideas change based on the culture of an area
- Ex. McDonalds in India changes menu to suit the population's taste.
- Examples include: McCurry Pan and McVeggie These have no beef and are vegetarian (Pg. 44, figure 2.7)

### Contagious Diffusion:

- Spreads randomly based on proximity
- Ex. Infectious epidemics, like H1N1 in 2009 (Pg.16)

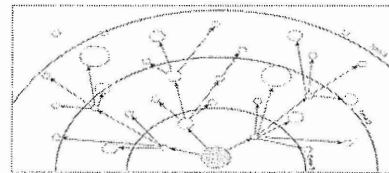


Figure 2.2a 5 pixels contagious diffusion spreading from a source.

[https://www.google.com/search?safe=active&biw=1366&bih=626&tbn=isch&sa=1&ei=80K0WpOaOsWys5gKFh7KYDQ&q=contagious+diffusion&oq=contagious&gs\\_l=psy-ab.3.1.0j0i67k1j0l2j0i67k1j0i5.88620.90396.0.91586.11.9.0.2.2.0.216.1260.0j6j2.9.0...0.](https://www.google.com/search?safe=active&biw=1366&bih=626&tbn=isch&sa=1&ei=80K0WpOaOsWys5gKFh7KYDQ&q=contagious+diffusion&oq=contagious&gs_l=psy-ab.3.1.0j0i67k1j0l2j0i67k1j0i5.88620.90396.0.91586.11.9.0.2.2.0.216.1260.0j6j2.9.0...0.)

## Historical Causes and Effects of Diffusion

**Diffusion**- the spread of an epidemic, innovation, or idea throughout space and time

Causes	Effects
<p><b>Imperialism</b>- one state's exercise of direct or indirect control over the affairs of another political society</p> <p><b>Colonialism</b>- form of imperialism in which a state takes possession of a foreign territory, occupies it and governs it Ex: British colonization over most of the world</p> <p><b>Trade</b>- to give in exchange for another commodity Ex: The Silk Road or The Columbian Exchange</p>	<ul style="list-style-type: none"> <li>● Rise of the British empire across diff. countries in the world influenced the spread of the English language.                             <ul style="list-style-type: none"> <li>○ Which is why English is considered today's lingua franca</li> </ul> </li> <li>● Through trade, many new ideas and innovations from one culture diffused into another culture such as food and clothing.</li> <li>● Diffusion of religion also happened all over the world(Christianity, Islam, Judaism, Hinduism, Buddhism, etc.)</li> </ul>

**The Columbian Exchange**- type of spatial diffusion and was the widespread transfer of plants, animals, culture, human populations, technology, diseases, and ideas between the Americas, West Africa, and the Old World(Europe) in the 15th and 16th centuries.






<https://www.irishtimes.com/news/science/how-nonhuman-life-forms-can-change-the-course-of-history-1.3482814>

- ★ Interactions between and among cultural traits and larger global forces can lead to new forms of cultural expression; for example, creolization and lingua franca.
  - **Lingua franca**- a language used by people who don't speak the same language to communicate for trade or business
- ★ Colonialism, imperialism, and trade helped to shape patterns and practices of culture.

See pages 199-201 in the textbook for more information.

# Contemporary Causes and Effects of Diffusion

Diffusion- spread of a phenomena across space

Causes:	Effects:
<ul style="list-style-type: none"> <li>● <b>Social media/Internet-</b> allows information to quickly spread and distant communication</li> <li>● <b>Transportation advancements-</b> with modern transportation, people can easily move and bring their traits with them to spread <b>Ex:</b> a disease can quickly move from one country to another because of planes</li> </ul>  <p>Source- <a href="https://wtznxt.com/2019/02/transportation-it-advancements/">https://wtznxt.com/2019/02/transportation-it-advancements/</a></p> <ul style="list-style-type: none"> <li>● <b>Politics-</b> <ul style="list-style-type: none"> <li>- policies/laws can spread throughout a country or the world</li> </ul> <b>Ex:</b> anti public smoking laws have diffused across US states after starting in California</li> <li>● <b>Supranationalism-</b> <ul style="list-style-type: none"> <li>- Supranational organizations such as the EU allow for ideas within it to spread to the organization's members and others</li> </ul> <b>Ex:</b> The euro, created by the EU was adopted by many of its members and surrounding states</li> <li>● <b>Economics-</b> <ul style="list-style-type: none"> <li>- Increasing amounts of <b>Multinational Corporations-</b> company has ties to multiple countries (facilities/offices)</li> </ul> <b>Ex:</b> McDonalds has expanded it's restaurants from the US across 119 countries</li> </ul>  <p>Source- <a href="http://www.millenniumpost.in/business/us-mnc-mcdonalds">http://www.millenniumpost.in/business/us-mnc-mcdonalds</a></p>	<ul style="list-style-type: none"> <li>● <b>Time-Space Convergence-</b> communication and transportation advancements lessen the effects of distance <b>Ex:</b> Flights to London today are only seven hours compared to a two week boat journey in the 18th century</li> <li>● <b>Globalization-</b> greater interconnectedness among the world's people, places, and institutions <b>Ex:</b> Growth of supranational organizations</li> </ul>  <p>source - <a href="https://www.allposters.com">https://www.allposters.com</a></p> <ul style="list-style-type: none"> <li>● <b>Urbanization-</b> new technology/ transportation allows cities to expand <b>Ex:</b> MNCs in developing countries can aid urbanization through providing jobs</li> <li>● <b>Cultural Convergence-</b> cultures become more alike as their interactions increase             <ul style="list-style-type: none"> <li>- <b>Increasing use of english language-</b> english has easily and rapidly diffused across the globe, becoming the lingua franca</li> <li>- <b>Loss of indigenous languages-</b> things diffuse that get in the way of their lifestyle causing assimilation</li> <li>- <b>Placelessness-</b> loss of unique aspects of a place</li> </ul> <b>Ex:</b> shopping malls all appear to be the ame</li> <li>● <b>Cultural Divergence-</b> a group/society separates usually due to being unsimilar or distance <b>Ex:</b> different dialects within a language represent cultural divergence</li> </ul>

# Diffusion of Religion

## Indic Hearth Religions

~Hinduism~Buddhism~Sikhism~  
(AKA the Vedic religions)

### Hinduism: (ethnic religion)

originated in the Punjab region of India



spread throughout India and Ganges River Valley

-mostly practiced inside of India because it is an ethnic religion

### Buddhism: (universalizing religion)

originated in northern India



spread through and out of India and into Southeast Asia and China

-contagious diffusion allowed Buddhism to spread along the "Silk Road"

### Sikhism: (universalizing religion)

originated in the Punjab region of India



hasn't spread far from the Punjab region

-it is still a young religion and even though it is a universalizing religion it has not diffused far from it's place of origin

## Semitic Hearth Religions

~Judaism~Christianity~Islam~  
(AKA the Abrahamic religions)

### Judaism: (ethnic religion)

originated in Israel and Palestine



spread out of Palestine and Israel but returned over time because of

### Diaspora: the scattering of a group of people through forced migration

-formation of Israel happened in 1948 after WWII, when millions of Jews were killed

-located mostly in the USA and Israel today

### Christianity: (universalizing religion)

originated in Palestine



spread throughout Europe and is now found all over the world

-spread through contagious and hierarchical diffusion

-most common in Europe, South America, North America, Australia, and Sub-Saharan Africa

### Islam: (universalizing religion)

originated in Saudi Arabia (Mecca and Medina)

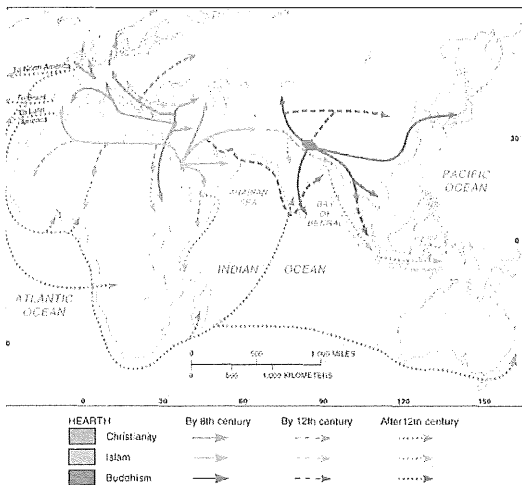


spread quickly to the Middle East and North Africa

-spread mostly through contagious diffusion

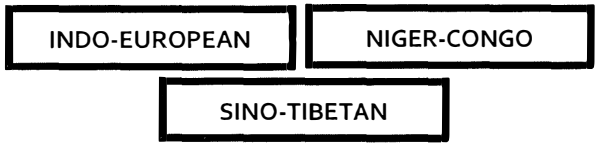
**IMPORTANT!: Universalizing Religions Spread outside their hearth via expansion and relocation diffusion whereas ethnic religions spread through relocation diffusion.**

For additional information see textbook pages: 138 to 141

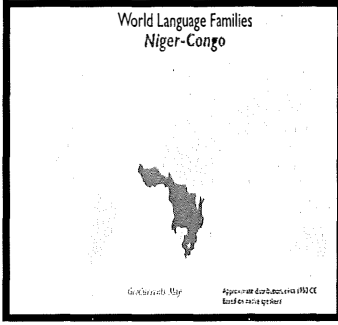
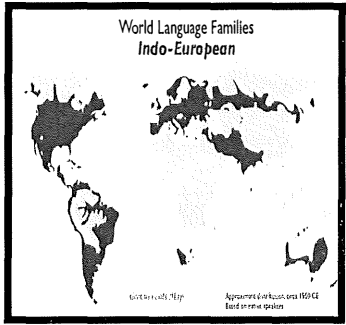
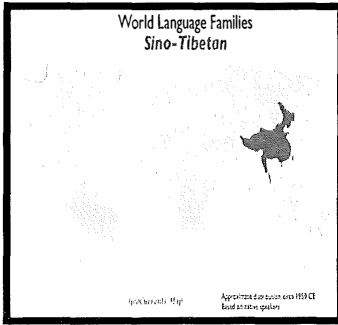


# DIFFUSION OF LANGUAGE

- **Language**- a system of communication based on symbols that have agreed upon meanings
- **Hearths**- places where an idea has originated or begun
- **Language hearths**- places where people believe languages have begun
- **Language families**- a collection of languages that share a common but distant ancestor
- There are many language families, but the main ones are Indo-European, Sino-Tibetan, and Niger-Congo
- **THREE MAJOR LANGUAGE FAMILIES:**



- **INDO-EUROPEAN**
  - Largest language family
  - Includes English, Hindi
  - Has the MOST SPEAKERS
- **SINO-TIBETAN**
  - Second largest language family
  - Includes Chinese (Mandarin), Burmese
  - Has the MOST NATIVE SPEAKERS
- **NIGER-CONGO**
  - Africa's largest language family
  - Includes Yoruba, Zulu
  - Has the MOST LANGUAGES



**Source:**  
<http://www.geocurrents.info/cultural-geography/linguistic-geography/world-maps-of-language-families/attachment>

## CAUSES FOR LANGUAGE DIFFUSION

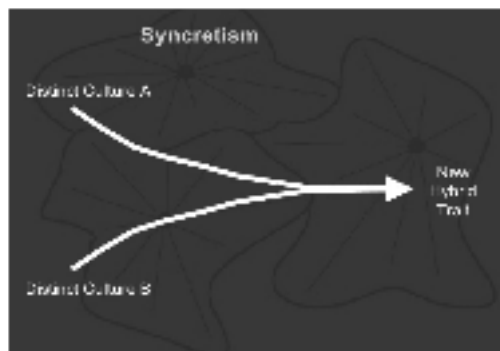
- **Political, economic, and religious** forces influence language diffusion

<b>Religious</b>	ex: Muslims whose first language isn't Arabic have to learn the language in order to understand the Qur'an
<b>Economic</b>	ex: Tourism and foreign business are main sources for revenue, therefore languages need to be know or learned in order to communicate.
<b>Political</b>	ex: The rise of the British empire across different countries spread out over the world influenced the spread of English as a result of English colonization

- European colonization played a major role the diffusion of European languages such as Spanish, French, English, and Portuguese
- Linguistic geographers also consider the contexts in which language is used, such as a language, in one place, may be used at home, another in school, etc.

FOR MORE INFORMATION REFER TO PAGES 98-107 IN THE TEXTBOOK

## Effects of Diffusion



**syncretism:** the blending of traits from two different cultures to form a new idea.

**ex:**

- **Voodoo-** West African spiritualism combines with French Catholicism
- **Our Lady of Guadalupe-** catholicism meets native traditions



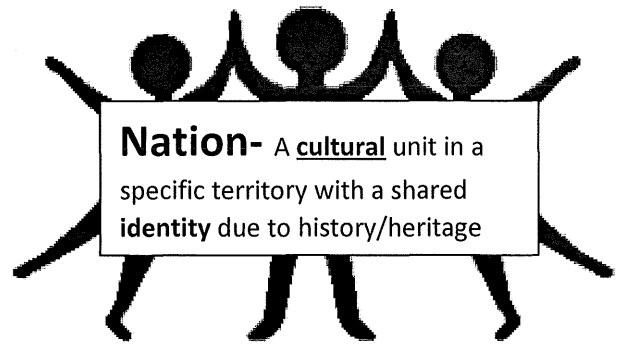
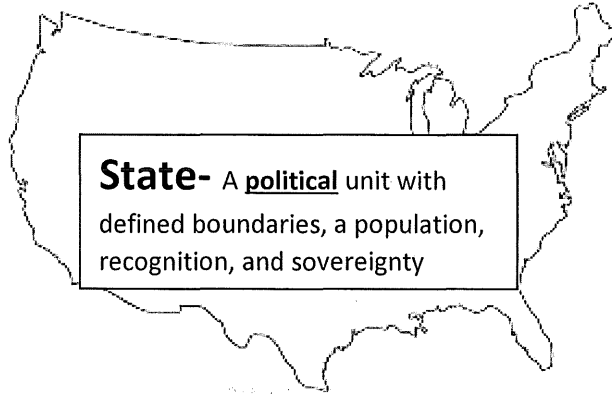
**multiculturalism:** the coexistence of more than one culture in one's values or a society/environment.

**ex:**

- a student living in a spanish speaking household, learning english in school
- Amsterdam (has approximately 178 different cultural backgrounds)and Los Angeles (has people from approximately 140 different countries, speaking roughly 86 different languages) are multicultural cities

<b>acculturation</b>	<b>vs</b>	<b>assimilation</b>
<ul style="list-style-type: none"> <li>• The process of borrowing traits or adapting to another culture while still keeping parts of the original culture</li> </ul>	(in acculturation the minority culture changes but is still able to retain unique cultural markers of language, food and customs;	<ul style="list-style-type: none"> <li>• The gradual loss of cultural traits, beliefs, and/or practices that distinguishes a cultural group from others; all original values replaced</li> </ul> *can be <b>voluntary or forced*</b>
<p><b>ex:</b></p> <ul style="list-style-type: none"> <li>• immigrants changing their clothing to fit their new country, but still keeping other aspects of their original culture</li> </ul>	whereas in assimilation the minority culture is fully absorbed into the majority culture)	<p><b>ex:</b></p> <ul style="list-style-type: none"> <li>• a country forcing immigrants to stop speaking their original language and pick up another one and to dress certain ways</li> </ul>

# Intro to Political Geography



**Nation-State-** the political boundaries (state) and cultural boundaries (nation) match. Nation-states are **homogenous**. This is not very common. Some of the best current examples are Iceland and Japan.

The main advantage of a nation-state is that since there is cultural unity it is often easier to maintain political unity as well (since the population already identifies together). Also, nation-states avoid the issues of irredentism, cultural tension, etc.

**Multinational State-** A state (country) with more than one cultural group. Multinational states are **heterogenous (diverse)**. This is much more common than nation-states, most countries are multinational states.

Advantages of a multinational state can include-

- Openness to immigrants
- Political links to other countries
- Economic links to other countries
- Improved perspectives

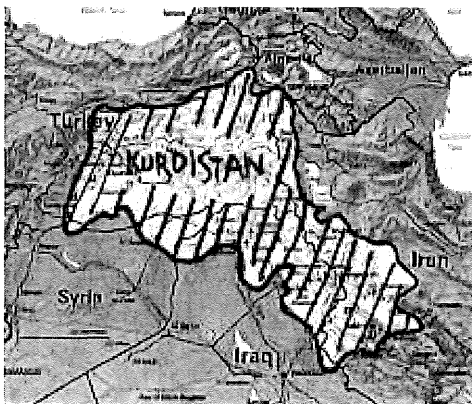


Image from <https://ekurd.net/kurdistan-we-live-between-artificial-lines-2015-04-10>

**Multi-state nation-** when a nation stretches across state boundaries. In the map to the left, the Kurdish people are found within the boundaries of six states.

**Stateless nation-** when a nation lacks control of a state. The Kurds are also an example of a stateless nation. They wish to create the country of Kurdistan shown on the map, but have received international recognition for the proposed state. Stateless nations can sometimes undermine established governments as they seek establishment of a state.

**Semi Autonomous and Autonomous Regions-** when a country gives autonomy (some degree of freedom) to one or more regions. Sometimes countries might do this because the region is geographically distinct OR, more commonly, that there is a dominant minority group (majority-minority) in the region. The creation of autonomous regions can help manage competing forces in multinational states and can help appease stateless nations so that the country can remain unified.

Example- Indian Reservations in the United States function as autonomous regions.

# Influencers of Political Boundaries

## Imperialism:

- Process of a state gaining direct/indirect control over another political societies affairs
- State **does NOT** gain physical territory
- Ex. China invaded Tibet in the 1950s and destroyed their culture

## Colonialism:

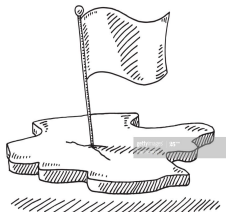
- A form of imperialism
- State **takes possession** of foreign territory, occupies, and governs it
- Colonies form hence the term "colonialism"
- Ex. England gained control over India's territory from the 1700s to 1947

States have NO control over land



\*states had **sovereignty**- supreme authority/power of another state over its affairs, governmental decisions, etc. (see pg. 195 & 199 for more info)

States have control over land



- Imperialism and colonialism fell out of favor and were replaced with the concept of: **Self-determination**- ability of a country to make their own political choices (see pg. 201 for more info)
- States were becoming independent and political boundaries formed as a result

<https://www.google.com/url?sa=i&url=https%3A%2F%2Fwww.gettyimages.com%2Fdetail%2Fillustration%2Fflag-piece-of-land-symbol-drawing-royalty-free-illustration%2F855823810&psig=AOvVaw2x3wL5GczIZIEeA1ANU2fp&ust=1586187109627000&source=images&cd=vfe&ved=0CAIQBxqFwoTCODVzcnNoegCFQAAAAAdAAAAABAD>

<https://www.google.com/url?sa=i&url=https%3A%2F%2Fwww.gettyimages.com%2Fdetail%2Fillustration%2Fflag-piece-of-land-symbol-drawing-royalty-free-illustration%2F855823810&psig=AOvVaw2x3wL5GczIZIEeA1ANU2fp&ust=1586187109627000&source=images&cd=vfe&ved=0CAIQBxqFwoTCODVzcnNoegCFQAAAAAdAAAAABAD>

This picture shows Japan as a nation-state. The shading of their region represents their nationality which corresponds to the political boundaries.



## LED TO:

- the creation of **nation-states** as states now had the right to make their own political choices and wanted to unify their territory by sharing a common nationality (see pg. 198 in textbook for more info)
- **Nation-state**: the political boundaries (state) and cultural boundaries (nation) match!, homogenous
- Not very common
- Easy to maintain political unity and avoid cultural tensions
- Ex. Japan: 99% Japanese, Iceland: 94% Icelanders

<https://www.google.com/url?sa=i&url=https%3A%2F%2Fnewellta.weebly.com%2Fstatesnations.html&psig=AOvVaw2W3wtGpymyKbRfd31aVHU&ust=1586186805629000&source=images&cd=vfe&ved=0CAIQBxqFwoTCCKjy1LbMoeCFQAAAAAdAAAAABAD>



## **Political Power and Territoriality**

*Political Power* is expressed geographically as control over people, land, and resources. Those who hold *Political Power* control the behavior of people through laws and regulations.

### Demonstrations of Political Power

#### **Choke Point**



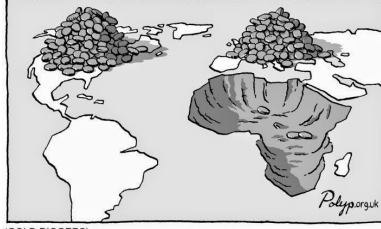
- A strategic strait or canal (geographical feature) which could be controlled by a country
  - Makes it harder for an area to be captured
  - Can be closed/blocked to stop or prohibit trade
- EX: The Strait of Hormuz which connects the Gulf of Oman with the Persian Gulf

#### **Shatterbelt**

- An area of instability between regions with opposing political and/or cultural views
  - A region under persistent stress or tension, and often fragmented by rivals
- EX: Israel and Kashmir today + Eastern Europe during the Cold War

#### **Neocolonialism**

- The use of economic, political, cultural, or other means to control or influence other countries, especially those of former colonies
  - When nations and corporations dominate subject nations
  - Can be applied to multinational corporations in MDCs controlling resources in LDCs
- EX: DeBeers is based in the UK but controls a large number of the diamond mines in African countries

Choke Point	Shatterbelt	Neocolonialism
 <p><a href="https://www.nextbigfuture.com/2018/08/iran-claims-it-now-controls-the-straits-of-hormuz-and-this-could-trigger-us-iran-war.html">https://www.nextbigfuture.com/2018/08/iran-claims-it-now-controls-the-straits-of-hormuz-and-this-could-trigger-us-iran-war.html</a></p>	 <p><a href="https://www.arcgis.com/apps/MapJournal/index.html?appid=72197fdafec4f38ac16d71737b7d516">https://www.arcgis.com/apps/MapJournal/index.html?appid=72197fdafec4f38ac16d71737b7d516</a></p>	 <p><a href="https://www.kingsnews.org/articles/neocolonialism-the-modernised-imperialism">https://www.kingsnews.org/articles/neocolonialism-the-modernised-imperialism</a></p>

\*\*All images are examples of the terms listed above

*Territoriality* is the connection of people, their culture, and their economic systems to the land.

- ❖ *Political Power* over a specific geographic area
- ❖ Means having access to the natural resources in that area

**For MORE INFORMATION, see pages 194 & 195 (some content is not in the book)**

# Types of Political Boundaries

## Relic:

- boundary that existed as an official boundary but does not anymore
- Ex. Berlin Wall between East and West Germany & Great Wall of China

## Consequent (Cultural/Ethnographic):

- boundary between different cultures, languages, or religions
- Ex. border between India (Hinduism) and Pakistan (Islam) & Ireland (mostly Catholic) and Northern Ireland (mostly Protestant)

## Geometric:

- boundary that follows straight lines or sometimes even lines of latitude and longitude
- Ex. 49th Parallel that separates U.S. and Canada & border between Egypt and Libya



[https://upload.wikimedia.org/wikipedia/commons/thumb/0/0E/Map\\_of\\_Libya\\_and\\_Egypt.svg/1200px-Map\\_of\\_Libya\\_and\\_Egypt.svg.png](https://upload.wikimedia.org/wikipedia/commons/thumb/0/0E/Map_of_Libya_and_Egypt.svg/1200px-Map_of_Libya_and_Egypt.svg.png)

## Superimposed:

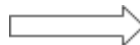
- boundary imposed by an outside power or force
- ignores existing cultures around the area
- Ex. Many African countries (Berlin Conference)

## Antecedent:

- boundary that existed **before** human settlement and (cultural) changes in landscape
- Ex. Western States in the U.S.

## Subsequent:

- boundary created **during** human settlement with changes in culture of landscape
- usually not geometric
- Ex. Northeast U.S. (colonization)



<https://www.worldatlas.com/img/world-state/west-virginia-state-untied-states.jpg>

Textbook Pages: 202 and 203

# The Function of Political boundaries- Land

## Actions required to form a boundary:

\*listed in the order one would take when executing these steps

<b>Defining</b>	Deciding the geographic location of the boundary	Usually decided through conferences with neighboring states or through the UN.
<b>Delimiting</b>	The recording of the boundary on a map	Recorded so future maps are accurate
<b>Demarcating</b>	Marking the boundary somehow physically	Achieved through placing walls, markers, clearing a strip of forest along the border, etc
<b>Administering</b>	Maintaining the boundary	Usually involves regulation of trade and passage across the boundary



\*Political Boundaries generally coincide with Cultural or National Divisions, but some are created through demilitarized zones or policy.

Ex: The demilitarized border between North and South Korea

<https://www.businessinsider.com/trump-dmz-demilitarized-zone-north-south-korea-safety-2017-10>

## Conflicts Along Borders

Reasons for conflict over Borders:

- Area is contested
- Political instability Between neighboring states
- Distribution of resources as a result of the border

## Sea Boundaries

### Boundaries

- A vertical plane
- Normally represented by a line
- Marks the territory a state has sovereignty over
- Divides airspace above ground
- Divides the rock and resources below ground
- Coastal and Island states' boundaries extend offshore

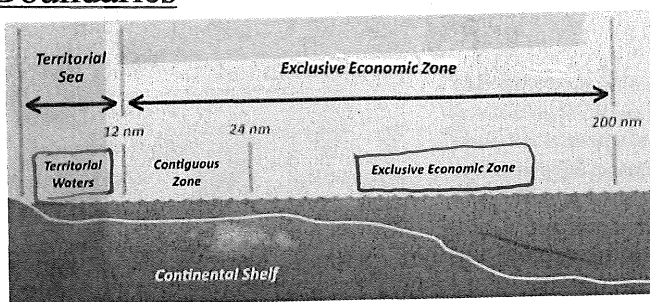


Figure 1- <https://www.quora.com/Who-owns-the-sea>

### *Territorial Waters*

Are waters that are enclosed by boundaries off the shore of coastal and island states which are considered part of the state's territory.

- Defined by the 1982 *United Nations Convention on the Law of the Sea (UNCLOS)* – Is a belt of coastal water extending, at most, 12 *nautical miles* (22.2 km or 13.8 mi) from the baseline (normally the average low-water mark) of a coastal state
  - **Nautical mile** = 2,025 yards (265 yards more than a normal mile)
- The states have full sovereignty over the resources in these waters and on its ocean floor
  - **Sovereignty**- The full right and power of a governing body over itself, without any interference from outside sources or bodies.

### *Exclusive Economic Zones (EEZs)*

Sea zone over which a state has special rights regarding the exploration and use of marine resources.

For example: Any energy production, from wind or water, in these areas will be under control of the state which boundary it is within

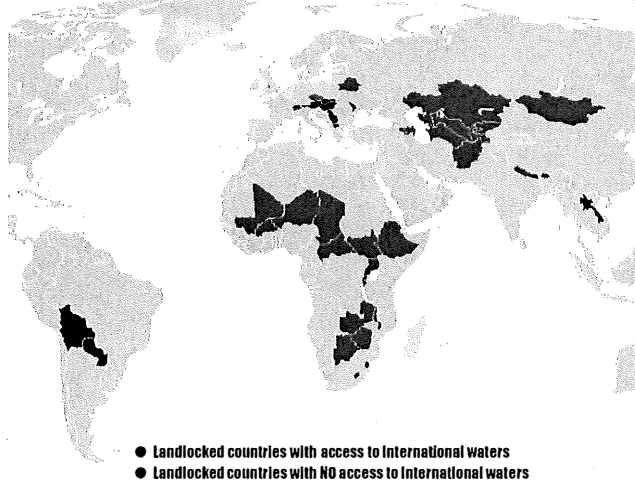
- Set and agreed on by the **UNCLOS**
- Extends 200 *nautical miles* (230 miles) from shore
- Unlike territorial waters, EEZs have a reduced sovereign right on the resources in them

Textbook page 202

### *Landlocked Countries*

Landlocked countries are at a huge disadvantage because their international trade depends on transit through other countries.

Figure 2- <http://i.imgur.com/hLHZC3c.jpg>



# Internal Boundaries

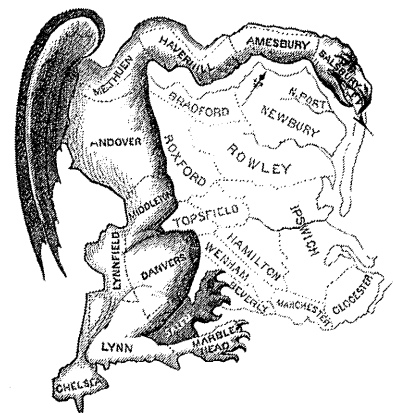
Census (every 10 yr) → reapportionment → redistricting → possible gerrymandering

## Reapportionment-

- Reassigning legislative seats among districts after census reports so they each represent the same amount of people

## Redistricting-

- Redrawing voting district lines (usually due to population change)



\*Elbridge Gerry in 1812 (used to benefit his political party in Boston and won)

## Gerrymandering\*-

- Manipulating voting district boundaries to make people favor one political party over another
- Process is disliked, but not illegal
- Common tactics= packing and cracking

### Packing-

creating district where support for opposition is overwhelming

Why: While they may win those districts, they aren't in others, so they can't win majority control.

(access vote gerrymandering: since the opposition has more votes than needed in districts they're packed in)

### Cracking-

disperses the opposition among districts so that they lose everywhere

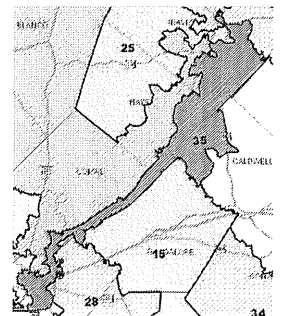
(wasted vote gerrymandering: the votes for opposition are all wasted since none of them are expressed)

## Gerrymandering Ex: North Carolina 12th

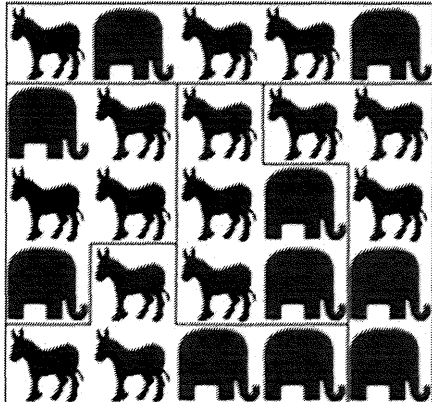


## 12TH CONGRESSIONAL DISTRICT

## Texas 35th



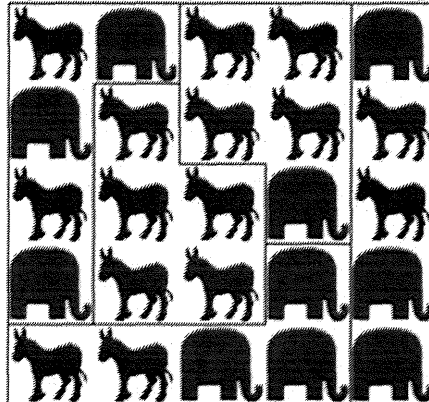
## Democratic Gerrymandering (cracking)



The Republican stronghold at the bottom right corner has been "cracked".

Result: complete Democratic victory (5D-0R)

## Republican Gerrymandering (packing)



The Democratic stronghold in the middle has been "packed".

Result: narrow Republican victory (3R-2D)

See pages 218-221 in the textbook or this cool video, <https://www.youtube.com/watch?v=bh4qAJDUOcc>, for more explanations and examples.

[https://www.washingtonpost.com/blogs/the-fix/post/name-that-district-texas-35th-district/2011/08/09/gJQAMrvm4I\\_blog.html?utm\\_term=.23c23d2fa29f](https://www.washingtonpost.com/blogs/the-fix/post/name-that-district-texas-35th-district/2011/08/09/gJQAMrvm4I_blog.html?utm_term=.23c23d2fa29f)

<https://www.smithsonianmag.com/history/where-did-term-gerrymander-come-180964118/>

<https://www.npr.org/2016/03/10/469548881/north-carolinas-congressional-primaries-are-a->

<https://owllcation.com/social-sciences/Why-the-US-is-not-a-proper-democracy>

## Forms Of Governance

### *Unitary System*

Vs.

### *Federal System*

Central gov. is supreme  
Operates as one unit  
Centralized  
Ex. China



Divides power between  
the different subdivisions  
Not as Centralized  
Ex. USA

### *Examples of Unitary and Federal states:*

Unitary - China, Pakistan, Turkey

Federal - Australia, United States, Brazil

### *Unitary government*

vs.

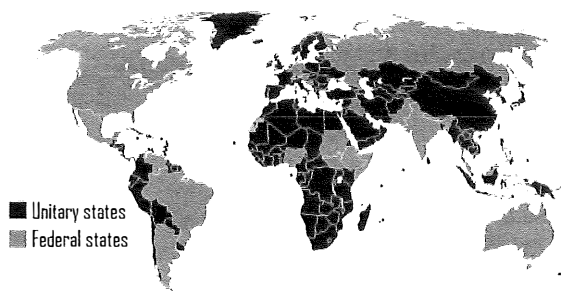
### *Federal government*

PROS

Unity: people follow same laws, have same policies	Can help prevent disintegration of a state due to diverse interests
Decisions are more efficient	Subnational units can create their own solutions that are more effective in meeting localized needs

CONS

Disconnects with minority regions within the country	Inequalities between subunits; not the same throughout the country
Can't respond to unique needs as well	Less unified, conflict between the different levels; redundancy in services (ie. state police and local police)



Federal states: North America, most of South America, Russia, Australia, India, parts of Africa

Unitary states: Iceland, most of Africa, parts of Asia, parts of South America

\*\*\*More likely to be federal if the state is large in terms of land area and/or has a lot of diversity

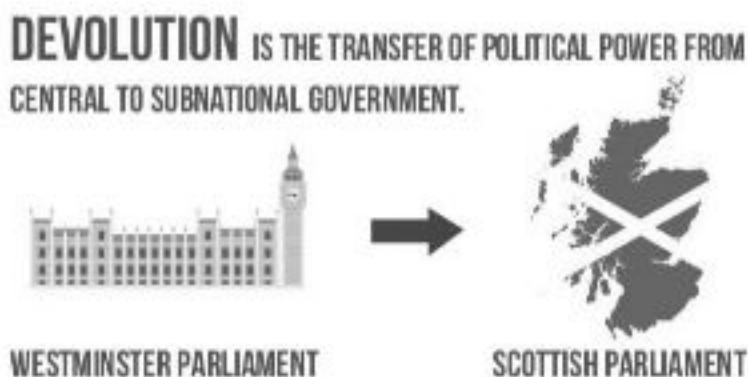
<https://saint-tepes.deviantart.com/art/unitary-federal-map-federation-unitary-states-465970656>

more on pg. 206 in textbook

## Defining Devolutionary Factors

**Devolution:** the movement of power from the central government to a smaller, self-identified community within it.

- ❖ In the sub-units formed by devolution, the power is not evenly divided.



Devolution is a response to centrifugal forces that can avoid separatism.

### ***Factors that can lead to the devolution of states include***

<b><i>Factor</i></b>	<b><i>Reasoning</i></b>
Physical Geography	Isolated villages, rugged topography, and islands often want to separate from the country
Ethnic Separatism	Groups with ethno-nationalist views often want independence and to control their own area within a country, the compromise being devolution
Ethnic Cleansing	A country may want to wipe a certain ethnic group out of the state but grant them power over their territory instead
Terrorism	Violent uprising of a group can lead political powers to grant them some autonomy over their concentration within an area of a country
Economic and Social Problems	Poorer areas of the country can often feel disadvantaged and at the same time, richer areas don't want to provide for the poor
Irredentism	An state may want to claim or influence an area within another state that has a majority of people from that ethnicity, especially if it was part of it in the past.

## Examples of Devolution and Disintegration

Devolution - The shift of power from a centralized government to a subunit within that central government

- These shifts of power are not usually evenly distributed among receiving subunits
- Devolution is a form of decentralization (textbook page: 240)

### PROS

- Government becomes closer to its people
- Manages social diversity
- Balances economic development

### CONS

- Could lead to a desire for independence
- Exclusion socially and politically
- Loss of sovereignty

### Key Examples

- The United Kingdom- Wales, Scotland, and Northern Ireland have some degree of authority over their own territories but they are still a part of a larger country, the UK
- Belgium- The federal government divides power among different areas. These “communities” represent divided languages and cultures.
- Nigeria- The use of federalism in Nigeria refers to the devolution of self-governance of Nigeria to its federal states who share sovereignty with the federal government.
- Canada- devolution occurred in regards to the Northwest Territories (largely native peoples) by giving people in those areas decision-making power over resources and land use; Canada is also noted for giving Quebec concessions regarding language laws (French).



Picture from: [https://www.cartoonstock.com/newscartoons/directory/a/act\\_of\\_union.asp](https://www.cartoonstock.com/newscartoons/directory/a/act_of_union.asp)

**Disintegration-** The process of a state breaking up into two or more independent parts

- Often disintegration is not only about politics within the country, but also the influence of other countries

### Key Examples

- Sudan- South Sudan separated from Sudan in 2011 largely due to religious differences. The South was largely Christian and Animist and the North largely Islamic
- Eritrea- Eritrea won independence from Ethiopia in 1993 after a 30-year war
- Soviet Union- It was broken into 15 different states. Different cultures, ideas, and poverty mainly caused the downfall of the Soviet Union.
- East Timor- Once part of Indonesia, they separated from the rest of Timor and they now have their own independence. Although, Timor is still part of Indonesia.



Picture: <https://paanluel.com/2016/12/01/witnessing-painful-disintegration-south-sudan-a-case-of-aldo-aiou-deng-akuey/>



## Supranationalism

- Supranationalism is where 3 or more states work together for a common political, economic, military or cultural purpose. (pg 209-212)

KEY ADVANTAGE	KEY DISADVANTAGE
More collective power, increase trade, political security.	When a state joins a supranational org they give up some of their own power to the org.(loss of sovereignty)


The following are example of supranational organizations (keywords on arrows):

# UN



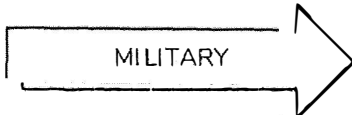
**~The United Nations~**

- Formed after WWII to promote peace in world
- Mission is to build peaceful relationships among states
  - Conflict is resolved peacefully
- Has many agencies or organs w/in it (ex: World Health Org)




~Most countries in the world are part of the United Nations~

# NATO



**~North Atlantic Treaty Organization~**

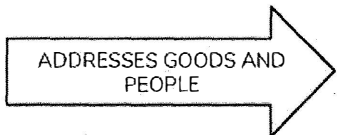
- Largest military budget in world
- Main goal is to protect the states involved through military



<https://www.militaryimages.net/attachment/military-soldier-png-142007/>

~United States, Western Europe and Canada are involved~

# EU

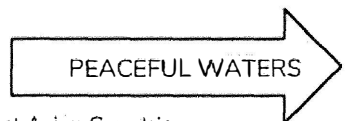


**~European Union~**

- Goal was to create a free trade zone
  - Free movement of goods, services and people
- Contains a parliament, central bank and flag


~Europe except Norway, Switzerland Russia and a few others~

# ASEAN



**~Association of Southeast Asian Nations~**

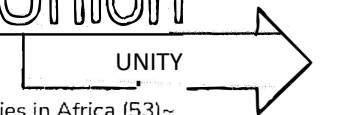
- Set up to promote cultural, economic and political development in the region
- Manages the water resource issues in the seas in the region



<https://2gg6v4h7f69.cloudfront.net/2009/03/03/CHRB105317569.jpg>

~Southeast Asian Countries~

# African Union



**~African Union~**

- Main supranational org for Africa
- Encourage economic development and political stability for members
- Leaders hope to reach same unity as EU

~Countries in Africa (53)~

# Arctic Council

**~Arctic Council~**

- cooperation between Arctic states
- involvement of the many indigenous communities of the Arctic
- concerned with sustainable development and environmental issues of the Arctic

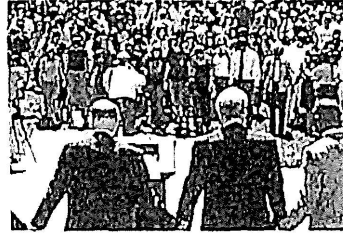
~Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden, United States~

## Centripetal and Centrifugal Forces

**Centripetal Forces-** events or circumstances that help unite the people of a state

Examples include:

- ❖ Equality
- ❖ Cultural Homogeneity
- ❖ Shared Language
- ❖ Patriotism
  - Armed Forces
  - Binding together of the country after the 9/11 attacks
- ❖ Good Leadership
- ❖ Geographic Boundaries keeping people inside
  - Ex: Pakistan is an isolated river valley surrounded by mountains
- ❖ Flourishing Economy
- ❖ Uniform Government Policies
- ❖ Strong Infrastructure
- ❖ Raison D'etre



<http://uncmain.sites.unc.edu/files/20>

**Raison D'etre-** the purpose or reason for the initial existence of a state

- ❖ Literally translated in French as "the reason for being"
- ❖ It is the most significant centripetal force

Example: Israel's Raison D'etre → to create a homeland for the Jews

Pakistan's Raison D'etre → to create a Muslim majority state apart from India

**Centrifugal Forces-** events or circumstances that divide and split the people of a state.

Examples include:

- ❖ Discrimination & Inequality
- ❖ Cultural Diversity
- ❖ Various Languages
- ❖ Various Religions
  - Ex: Hindus and Muslims in India
- ❖ Economic Disparities
- ❖ Government policies that exclude one or more groups
- ❖ Geographic Boundaries splitting a country
  - Ex: Mountains that spread across Nepal can split communities
- ❖ Multinational States
- ❖ Poor Leadership
- ❖ Poverty
- ❖ Weak Infrastructure
- ❖ Lack of a Raison D'etre
  - Ex: Yugoslavia was created as a multinational state with split religions and languages and did not have a Raison D'etre. Eventually, the country broke apart.

Every state has both centripetal and centrifugal forces present- it is a matter of which ones are strongest.

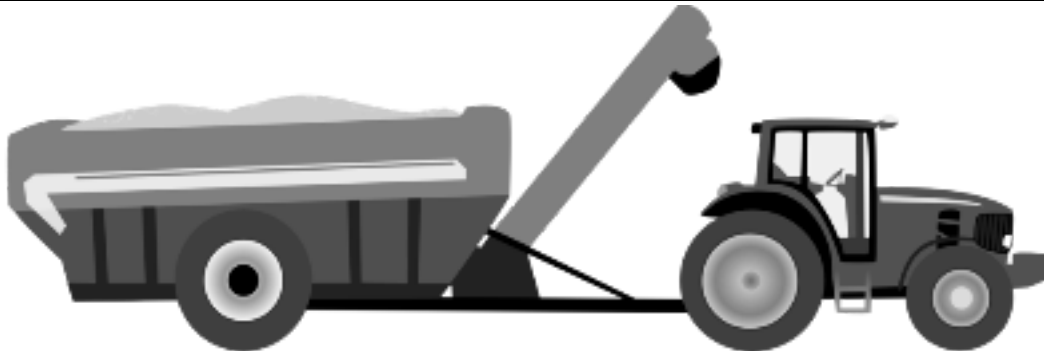
For more information, see textbook pages 206- 207

## Climate and Agriculture

Types of Agriculture Practiced	Climate Type/Location	What does it look like?
<p><b>Shifting Cultivation (slash &amp; burn)</b> - Agricultural system used to clear land to make fields for crops using a cycle of land rotation &amp; fallow periods.</p> <p><b>Fallow period</b> - Leaving a field for 5-10+ years for it to gain fertility.</p>	<p><b>Climate:</b> subtropical and tropical climates</p> <p><b>Locations:</b> Located in Southeast Asia, Central &amp; South America, &amp; Africa.</p>	 <p><a href="https://www.bibalex.org/SClplanet/en/Article/Details?id=5180">https://www.bibalex.org/SClplanet/en/Article/Details?id=5180</a></p>
<p><b>Nomadic Pastoralism</b> - An agricultural system where the caring &amp; breeding of animals is based on open grazing</p> <p><b>Transhumance</b> - Moving herds on a seasonal basis to new land/water sources</p>	<p><b>Climate:</b> arid &amp; semi-arid regions, regions with little arable land.</p> <p><b>Locations:</b> The Sahara Desert, Mongolia. &amp; the Middle East.</p>	 <p><a href="https://www.worldatlas.com/articles/countries-where-nomadic-pastoralism-is-still-a-way-of-life.htm">https://www.worldatlas.com/articles/countries-where-nomadic-pastoralism-is-still-a-way-of-life.htm</a></p>
<p><b>Mediterranean</b> - Focused on cultivating livestock, grain, &amp; a tree or vine crop</p> <p><b>Agroforestry</b> - integration of trees with crops and/or livestock</p>	<p><b>Climate:</b> includes hot &amp; dry summer &amp; mild, wet winters.</p> <p><b>Locations:</b> Practiced in the land around the Mediterranean sea, Central Valley of California, &amp; parts of Australia.</p>	 <p><a href="https://www.winebusiness.com/2018/05/26/beginners-guide-to-the-wines-of-italy/">https://www.winebusiness.com/2018/05/26/beginners-guide-to-the-wines-of-italy/</a></p>

# Types of Intensive Agriculture

Type of agriculture that requires large levels of manual labor or machinery to produce the maximum crop yield; yields a large amount of output per acre through concentrated farming; uses a small amount of land relative to amount of output



<https://encrypted-tbn0.gstatic.com/images?q=tbn%3AANd9GcRBfGv6coSXO5jTmE7KTkbzab6qAepemSXqPxCfL2qm-KuijvX&usqp=CAU>

## Market Gardening:

- Small scale production of fruits, vegetables, and flowers as cash crops sold directly to local consumers
- Located in/near market
- Heavy fertilizing is required for successive crops
- Ex: local farmer grows flowers and sells them in the market during weekdays



<https://il.wp.com/savvygardening.com/wp-content/uploads/2016/02/vegetable-garden.jpg?w=657&ssl=1>

## Mixed Crop/Livestock Systems:

- Integrated system based on raising crops to feed livestock and selling the animal products off the farm
- Practiced across Asia
- Ex: large family grows grain to feed to their cows, which are used to make a profit from their milk sold in the market



[https://nifa.usda.gov/sites/default/files/styles/nifa\\_large/public/blog/Livestock%20grazing.jpg?itok=jnRkOvJ2](https://nifa.usda.gov/sites/default/files/styles/nifa_large/public/blog/Livestock%20grazing.jpg?itok=jnRkOvJ2)

## Plantation Agriculture:

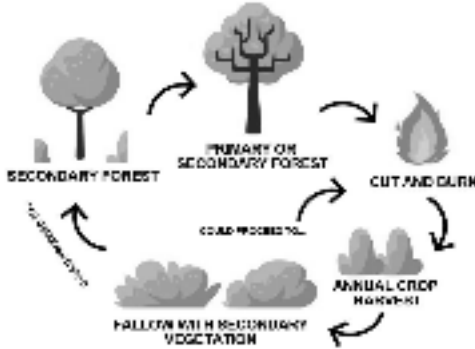


- Large plot of land that specializes the production of a cash crop
- Company HQs tend to be in North America/ Europe, while plantations are located in LDCs
- Ex: orange juice company, HQ in U.S. grow their oranges on plantations in Brazil, but sell products in U.S.



<https://greentumble.com/wp-content/uploads/2016/07/monoculture-practice-cons.jpg>

# Types of Extensive Agriculture

extensive agriculture - small inputs of labor, fertilizers, and/or capital; takes up a large amount of land relative to the output

<p><b>Shifting Cultivation</b></p> <ul style="list-style-type: none"> <li>➤ also known as slash and burn</li> </ul>  <p>Image retrieved from <a href="https://ifad-un.blogspot.com/2019/09/cop14-day-2-transitions-of-shifting.html">https://ifad-un.blogspot.com/2019/09/cop14-day-2-transitions-of-shifting.html</a></p>	<ul style="list-style-type: none"> <li>➤ Uses fire to clear vegetation to create fields for crops</li> <li>➤ Includes fallow periods (time between autumn harvest and spring planting for field to rest)</li> <li>➤ Practiced in Southeast Asia, Central and South America, and Africa</li> <li>➤ Leads to deforestation</li> </ul>
<p><b>Nomadic Herding</b></p>  <p>Image retrieved from <a href="https://www.ihmc.edu.hk/CustomPage/83/NSS/famine/pp4.pdf">https://www.ihmc.edu.hk/CustomPage/83/NSS/famine/pp4.pdf</a></p>	<ul style="list-style-type: none"> <li>➤ Livestock are herded to find areas to graze</li> <li>➤ Practiced in Northern Africa (Sahara Desert), Mongolia, Central Asia, and Middle East</li> <li>➤ Typically arid and semiarid regions</li> <li>➤ <b>Transhumance</b> - moving herds to new places based on seasons</li> </ul>
<p><b>Ranching</b></p>  <p>Image retrieved from <a href="https://www.ihmc.edu.hk/CustomPage/83/NSS/famine/pp4.pdf">https://www.ihmc.edu.hk/CustomPage/83/NSS/famine/pp4.pdf</a></p>	<ul style="list-style-type: none"> <li>➤ Raising of domesticated animals (cattle and livestock) for the production of meat and other byproducts</li> <li>➤ Practiced in Western United States, South America, and Australia</li> <li>➤ Uses large areas of land</li> </ul>

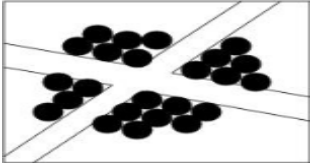
For more info, visit pages 334-336 & 342 ☺

## Settlement Patterns and Survey Methods

Settlement patterns are influenced by land prices, transportation infrastructure, public policy, and social and ecological processes.

Clustered Settlements

- Families live close to one another
- Fields surround houses and barns or farm buildings
- Often known as hamlets or villages



<https://www.slideserve.com/ophrah/settlement-patterns>

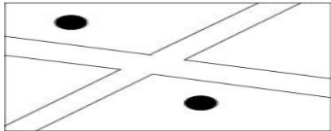
<https://www.slideserve.com/ophrah/settlement-patterns>

Linear Settlements

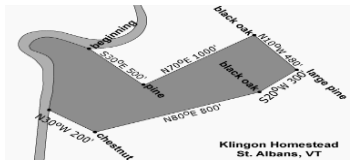
- Line of buildings concentrated on a road or river
- Facilitates communication
- Property is in long, narrow strips

Dispersed Settlements

- Farmers live on individual farms
- More isolated from neighbors
- More difficult for communication within community



<https://www.slideserve.com/ophrah/settlement-patterns>



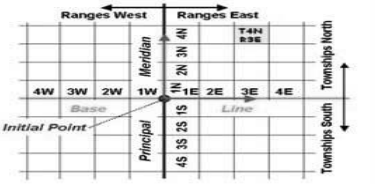
[https://sites.google.com/a/stcabarus117.nc.us/averell\\_sphg\\_illamas\\_fhe/home/hey/terms/concepts/models/peopls](https://sites.google.com/a/stcabarus117.nc.us/averell_sphg_illamas_fhe/home/hey/terms/concepts/models/peopls)

Metes and Bounds

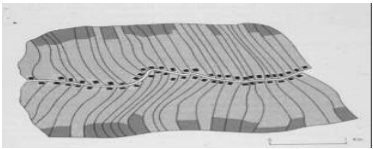
- Relies on description of land ownership by natural features
- Based on trees, streams, etc.
- Easily contested between land owners due to changing natural environment

Township and Range

- Rectangular land division
- Range is the measurement east to west
- Township is measurement of distance north to south
- Western U.S. was divided this way



[https://sites.google.com/a/stcabarus117.nc.us/averell\\_sphg\\_illamas\\_fhe/home/hey/terms/concepts/models/peopls](https://sites.google.com/a/stcabarus117.nc.us/averell_sphg_illamas_fhe/home/hey/terms/concepts/models/peopls)



[https://sites.google.com/a/stcabarus117.nc.us/averell\\_sphg\\_illamas\\_fhe/home/hey/terms/concepts/models/peopls](https://sites.google.com/a/stcabarus117.nc.us/averell_sphg_illamas_fhe/home/hey/terms/concepts/models/peopls)

Long Lots

- Divides land into narrow parcels
- Stretched from rivers, roads, canals, or any other shared significant location

# First Agricultural Revolution (Neolithic Revolution)

**Agricultural Goal:** Produce more in the same amount of space.

## Before The First Agricultural Revolution:

- Most of the earliest humans were nomadic hunter-gatherers living in small groups following animals and collecting fruits, vegetables, and nuts along the way.
- Some groups lived along coasts and got their food from fishing.

HUNTER-GATHERER FAMILY



agnesym.blogspot.com

## During The First Agricultural Revolution (Neolithic Revolution):

- Starting In about 8500 BC in several different hearths, people began to settle in areas and domesticate plants and animals (farming).
- Once farming became more prominent, hunter-gatherer groups began to disappear.

### Pros and Cons of Farming

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>• Faster food production</li> <li>• Cities were developed</li> <li>• Population growth</li> <li>• Allowed Specialization.</li> </ul> | <ul style="list-style-type: none"> <li>• A caste system was established.</li> <li>• Fatal diseases became more frequent.</li> <li>• The human lifespan decreased.</li> </ul> |
|---|--|

- The First Agricultural Revolution developed through independent invention. This means it began in multiple different places at once. These places were called hearths.

### Hearths:



**Andean Highlands (3500 BC)**

**Animals:** Llama, Turkey, Guinea Pig  
**Crops:** Potato, Cotton, Peanut

**Mesoamerica (7000 BC)**

**Animals:** Turkey  
**Crops:** Corn, Beans, Squash, Cotton

**China (7500BC)**

**Animals:** Pig, Silkworm, Cattle, Chicken  
**Crops:** Rice, Millet, Soybeans

**Fertile Crescent (8500 BC)**

**Animals:** Sheep, Cattle, Horses, & Camel  
**Crops:** Wheat, Barley, Dates, Onion

**Eastern United States (2500 BC)**  
**Crops:** Sunflower, squash

dasuncvch.cz

For more info see pages 327-328 in text book

# The Columbian Exchange

## What Is the Columbian Exchange?

- The exchange of plants, animals, and diseases between the Americas and the rest of the world.
- Trade between the "Old world" and the "New world"
- Example of cultural diffusion
- Happened after Christopher Columbus' voyage in 1492

## Common products traded:

- Sugar
- Bananas
- Coffee beans
- Grapes
- Eggs
- Lentils
- Broccoli
- Beans
- Squash
- Tomatoes

## Effect of Columbian Exchange:

- Increased food supply for both the New World and Old World
- New crops, products and animals introduced to both worlds
- Changed the way people lived
- Europeans brought technology to the Americas (ex- new farming methods and the alphabet)
- Increase in population
- Everything became more interconnected

## Common animals traded:

- Horses
- Cattle
- Chicken
- Hogs
- Sheep
- Oxen
- Goats
- Pigs
- Guinea Pig
- Llama
- Donkeys
- Large dogs

## Cons of the Columbian Exchange:

- Many diseases such as smallpox, influenza, and malaria were brought to the Americas, who had no immunity to it
- Slavery and exploitation of workers





## The 2<sup>nd</sup> Agricultural Revolution

(occurred during the Middle Ages)

**Hearth:** *The origin or starting place of a phenomenon. (There can be more than 1)*

### The Role of the Industrial Revolution:

- Started in England (lead to more urbanized cities there),
- Development of new machines and high speed/effective production.
- Lead to rural--urban migration in search of factory/manufacturing jobs. *(today many immigrants move to big, successful cities for jobs)*
- It effected the textile and agricultural industries drastically.

### New Agricultural Inventions:

1. **Cotton Gin:** separates cotton fibers from seeds.
2. **Moldboard Plow:** curved metal plate that allows farmers to turn over soil.
3. **Seed Drill:** places seeds quickly into small holes along the field.
4. **Horse Collar:** enabled farmers to use horses for labor, which was much more efficient.

### The Effects of this Revolution:

-These new inventions and agricultural practices made farming more efficient.



-Less farm jobs are needed & food yields can support more people!

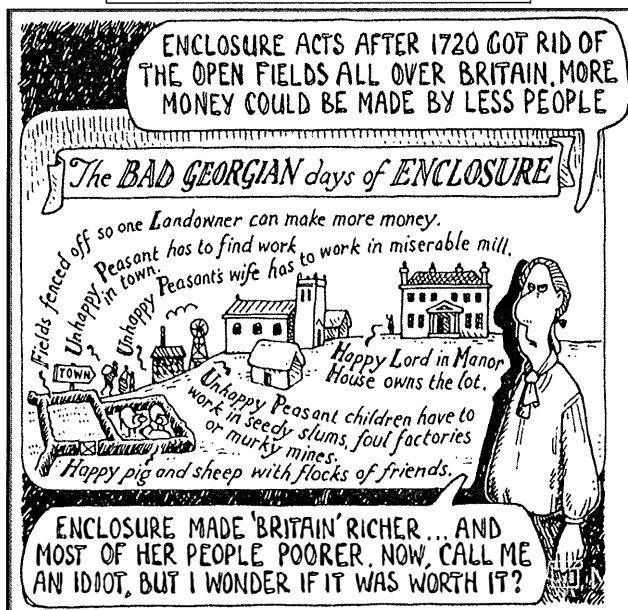


-People sought out work/jobs in the cities. ***(a surge of rural to urban migration!)***

### What is the Second Agricultural Revolution?

- The development of new tech and agricultural practices in Western Europe.
- These new advancements meant more efficient farming and larger yields.
- Effected mostly Europe and North America (no LDCs)-
- This was the first-time mechanization was introduced to agriculture.
- Very closely related to the Industrial Revolution.

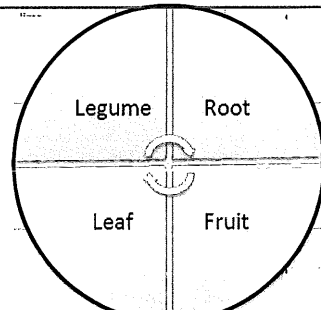
### What Where the Enclosure Acts?



### 4 Course Crop Rotation (4-year process)

-Farmers rotate the types of crops they plant every year to ensure the soil's fertility.

-This avoids a fallow period & increases yields & productivity.



[http://veganslivingofftheland.blogspot.com/2015/06/crop-](http://veganslivingofftheland.blogspot.com/2015/06/crop-rotation.html)

# Green Revolution

High-yield seeds, chemicals, mechanization, positive and negative consequences

## When and where did The Green Revolution take place?:

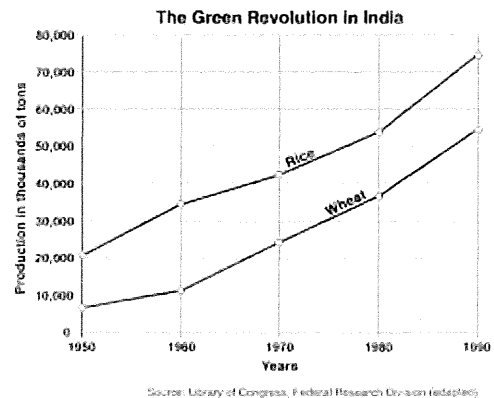
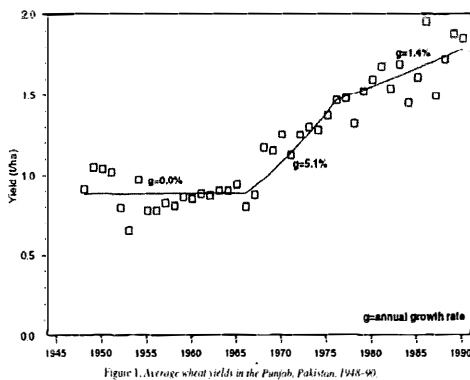
- Main purpose: to alleviate world hunger, specifically in LDCs
- Lead to a dramatic increase in grain production, between 1965 and 1985, in Asia and Latin America
- Did NOT affect Sub-Saharan Africa

## Positive and negative consequences

Positive	Negative
-Large supply of grain -Wheat production has dramatically increased -India became self sufficient in grain production -Staved off famine in Asia	-Farmers debt has risen -Soil fertility has declined -Fertilizer and pesticide residues have built up in the environment -Groundwater has been overexploited

## How were chemicals, mechanization, and high-yield seeds used?:

- Chemicals: Chemicals (ex.fertilizer) were used to enhance plant growth
- Mechanization: Machines and tools were made to make the process of planting and harvesting easier and quicker
- High-yield seeds: High-yield seeds largely increased the amount of crops produced. Ex: High-yielding seed varieties were exported to India and Pakistan in the 1960s; in less than a decade, wheat production nearly doubled in both countries



<https://hnrs353.wordpress.com/history/history-the-green-revolution-in-pakistan/>

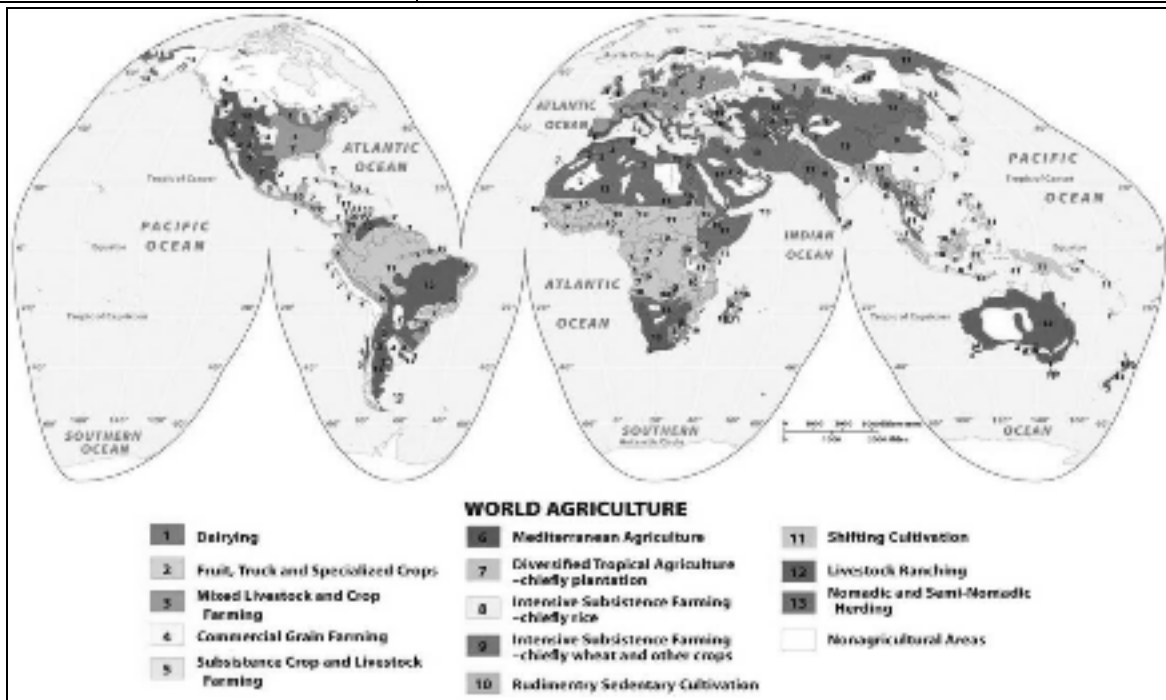
<http://howtofeedtheworld.eclablog.fr/from-the-green-revolution-to-the-evergreen-revolution-a125056626>

Definitions (for more information see pages 326-332 in your textbook!!)

High-yield seeds: seeds that respond well to fertilizer	Mechanization: is changing from hand work to machine
---	--

# Agricultural Production Regions

Subsistence Agriculture	Commercial Agriculture
<p>Found in:</p> <ul style="list-style-type: none"> <li>- <b>LDCs, tropical rainforests:</b> Central/South America, Africa, SE Asia → (Shifting cultivation)</li> <li>- <b>dry and desert areas in LDCs:</b> India, North of Fertile Crescent, Northern Europe/Asia → (Pastoralism/Nomadic Herding)</li> <li>- <b>Asia:</b> Thailand, Vietnam, India &amp; coastal lowlands/river valleys → (Wet rice farming)</li> <li>- <b>much of developing world</b> (India, China, parts of Mexico and South America, Sub Saharan Africa) → (Smallholder crop and livestock farming)</li> </ul>	<p>Found in:</p> <ul style="list-style-type: none"> <li>- <b>Great Lakes areas, NE of America, Northern Europe</b> → (Commercial dairy farming)</li> <li>- <b>Southeast of US, Maine, Idaho, Caucasus</b> → (Commercial gardening and specialized crops)</li> <li>- <b>Northern US, Southern Canada, Europe, Southern Australia</b> → (Commercial grain)</li> <li>- <b>dry and desert areas:</b> Western North America, Southern South America, Western Europe, Southern Africa, Australia → (Livestock ranching)</li> <li>- <b>places with Mediterranean climate:</b> North Africa, South Europe, California → (Mediterranean)</li> <li>- <b>Europe, Russia, Corn Belt of US</b> → (Mixed crop and livestock farming)</li> <li>- <b>LDCs in tropical areas:</b> Central and South America, SE Asia, Southern Africa → (Plantation)</li> </ul>



<https://mrsichakpchs.weebly.com/uploads/1/1/2/3/11239671/edited/picture1.jpeg?1490629018>

**Bid-Rent Theory:** As you move close to the market → land becomes more expensive, farther away from market → land is less expensive.

- intensive agriculture - **intensive farmers can pay for the expensive land closer to market bc less land is used** → **intensive agriculture is located closer to the market**
- ex. Dairy/Horticulture is most intensive form of agriculture in Von Thunen Model → located closest to market
- extensive agriculture - **extensive farmers can pay for the cheaper land farther from market bc more land is used** → **extensive agriculture is located farther from market**
- ex. Ranching/Livestock is most extensive form of agriculture in Von Thunen Model → located farthest from market

For more information, see pages **333-343** of textbook and

<http://www2.harpercollege.edu/mhealy/geg100/notes/notes12x.htm>

## Trends in the Spatial Organization of Agriculture

**Commercial Agriculture** - lots of inputs; products are not used by the farm, sold for a profit

- Ex. wheat, cotton, and livestock production

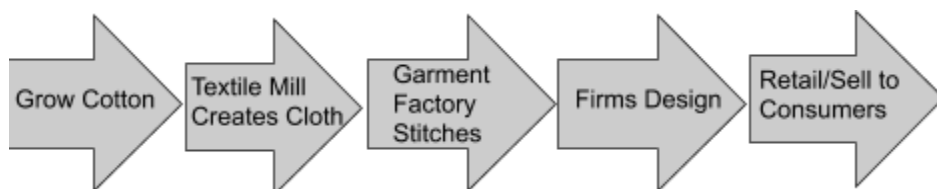
**Horizontal Integration** - many branches of a company OR many commonly owned companies work together and sell their products

**Vertical Integration** - one firm controls multiple phases of a commodity chain

- Ex. Apple

**Commodity Chain** - linked system of processes; gathers resources, converts into goods, packages, distributes, and sells

- Ex. clothing industry



<https://www.commondreams.org/views/2012/12/14/how-food-movement-gaining-strength>

### **Decline of Small Family Farms:**

Businesses shift from horizontal to vertical integration → Complex commodity chains form → Companies gain large control over the market → Traditional family farms can't compete and close, sending farmers into unemployment

- ★ In the last 10 or so years though movements have started in order to support local farmers, such as the grassroots movement.

### **Technology:**

- Technology has increased the carrying capacity of the land, making it so that farmers can grow more on less land.
- Increased the economies of scale - the larger your farm, the more efficient your work will be = more profitable + more technology



<https://www.networkworld.com/article/3091069/lori-based-iot-service-helps-farm-co-ops-cultivate-more-land.html>

\*\*\*For more information see pages 304-305, 312-313, and 338

# Von Thunen

Model made in 1826 by J.H. Von Thunen to explain patterns of agricultural processes

## Assumptions in model

- Market is in the center of an isolated state
- Land is flat
- Farmers transport goods to market in wagon
- Farmers act to maximize profit

### First Ring- Intensive Farming and Dairying

- Close to city because more perishable, would not spoil before city
- Needed less space for goods like fruits, vegetables

### Second Ring- Forest

- Timber heavy and expensive to transport over distances
- No longer exists in modern world

### Third Ring- Extensive Crops

- Lighter and lasted longer for farther away travel
- Needed more room for lots of crop

### Fourth Ring- Ranching

- Animals self transport to city, so very cheap
- More land required for animals

### Fifth Ring- Wilderness

- No agricultural practices because distance from city too large

### Bid-Rent Theory

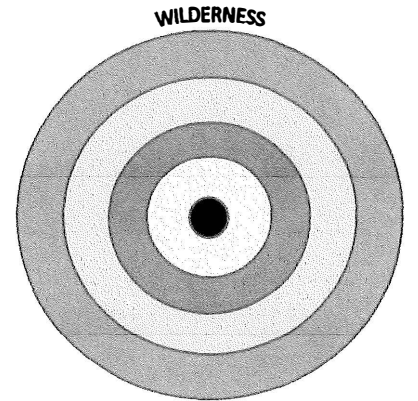
- As you move closer to the market, the land becomes more expensive, and farther away from the market is less expensive
  - Buy less land, for intensive farming (inner rings)
  - Buy more land, for extensive farming (outer rings)

### Relevance today

- More tech (refrigeration) so perishability is less of issue
- More than one market
- Transportation more efficient

Specialty farming does not apply, as their goods will be transported to multiple markets no matter the distance!

e.g. Florida fruit, avocados from Central America, etc.



- Central City
- Intensive farming and dairying
- Forest
- Increasingly extensive field crops
- Ranching, animal products

### Extensive-

- Needs less inputs, more spread out
- E.g. cattle and grain

### Intensive-

- Requires more labor/machines
- Crops are closer together
- More planted in less space
- E.g. produce

For more information, see pages 342-343 of textbook ☺

# THE GLOBAL SYSTEM OF AGRICULTURE

## COMMODITY CHAIN

The link that connects the steps of the production and distribution of a good

- **GLOBAL COMMODITY CHAINS:**  
Commodity chains on a global scale



World trade



Infrastructure



Political relationships

Factors that influence food distribution chains



Countries are **commodity dependent** when commodities make up 60% or more of their exports. Sub-Saharan Africa is the most commodity dependent region.

## AGRIBUSINESS

The businesses that are involved in the production and marketing of a farm product

- Ex: the businesses in a commodity chain



<https://www.ifama.org/2010-Boston>

## GMOS (GENETICALLY MODIFIED ORGANISMS)

Organisms that have had their DNA altered through genetic engineering

- Mainly used to create **higher yields** and build **resistance** to pesticides and fertilizers

## MONOCULTURE

The growth of a single crop in a field

- Ex: a cornfield
- Leads to loss of biodiversity

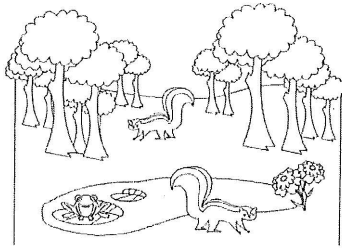


<https://www.shutterstock.com/search/monoculture>

See pages 304, 329-332, and 338  
Created using Canva.com

## Consequences of Agricultural Practices

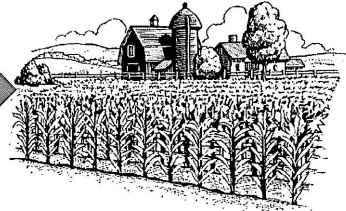
**Biodiversity:** a variety of plants and animals



Land cleared for farming

Field with covered with one crop = low biodiversity.

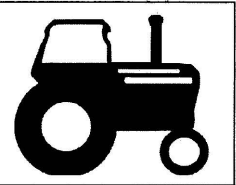
- Fast spread of disease
- Instability
- Harm to environment



**Over use of land by**

- Shortening fallow periods
- Use of pesticides/ fertilizers in soil
- Overuse of irrigation (drains ground water)

Farming causes pollution



Leads to



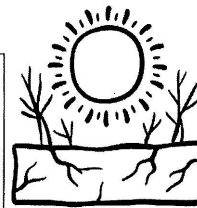
**Salinization:**

Accumulation of salt in the soil

Leads to

**Desertification:**

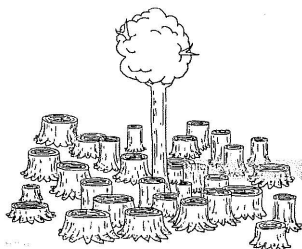
The shift of usable land to desert like conditions because of humans and/or environment



Ex: In India, desertification affects 413,000 square miles, one third of its land area.

**Clearing Land for Farming Causes:**

- Land coverage change (use of land and what is covering it changes)
- **Deforestation:** the clearing of large areas of trees



Ex: forests are disappearing at the rate of 46-58 million square miles annually, the equivalent of 36 football fields per minute

**Image Sources**

- Biodiversity: <http://laoblogger.com/forrest-animal-clipart-black-and-white.html>  
 Field: [http://www.clipartpanda.com/clipart\\_images/farm-clipart-black-and-white-62273115](http://www.clipartpanda.com/clipart_images/farm-clipart-black-and-white-62273115)  
 Salt: [http://www.clipartpanda.com/clipart\\_images/salt-black-and-white-clipart-64087047](http://www.clipartpanda.com/clipart_images/salt-black-and-white-clipart-64087047)  
 Desertification: [https://www.flaticon.com/free-icon/desertification\\_532748](https://www.flaticon.com/free-icon/desertification_532748)  
 Deforestation: <https://www.gettyimages.com/illustrations/deforestation>

Text Book Pages 344-345

## Challenges of Contemporary Agriculture

**Contemporary Agriculture:** The modern advancements in agriculture used today.  
(ex.GMOs, pesticides, fertilizers )

**Gene Revolution:** Period from 1980 to present day where the use of biotechnology was introduced to agriculture in order to increase crop yields.

### **GMOs**

Organisms genetically altered to be more appealing to producers and consumers.

- Long term effects aren't known
- Some modifications can cause allergic reactions in consumers.
- Leads to monoculture, as the crops can last through harsher conditions.

### **Biotech:**

- Improve the quality of the yield of crops and livestock via cross breeding, hybridization, and recently genetic engineering.
- Ex: Pest Resistant plants

### **Aquaculture:**

- The farming of aquatic animals or cultivation of aquatic plants for food
- Aquaculture can contaminate water bc waste products stay in the water longer
- Some fish food is contaminated with pesticides and chemicals that are in the feed, also the use of antibiotics and artificial supplements that are given to the fish causes some to say it is unhealthy

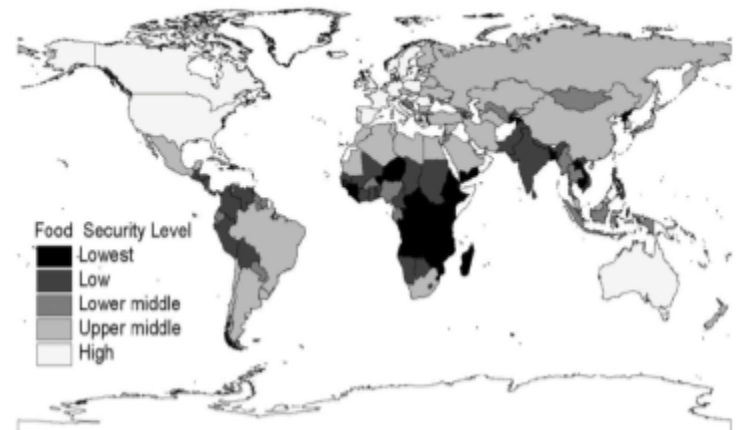
### **Major Environmental Concerns**

Sustainability, Soil and water pollution and overuse, Extensive fertilizer and pesticide use, Loss of Biodiversity (due to monoculture and selective breeding)

### **THE KEY CHALLENGE-**

How do we feed a global population (that is growing)?

- Lack of food access is still an issue
  - Food Insecurity
  - Food Deserts
- Enough food is produced but **DISTRIBUTION** is an issue
- Weather can lead to adverse conditions for producing crops and cause food insecurity in a given year
- Arable land that could use and often was used for farming is lost to urban sprawl (suburbanization)



Map from:  
[https://www.researchgate.net/figure/World-food-security-level\\_fig1\\_46442148](https://www.researchgate.net/figure/World-food-security-level_fig1_46442148)

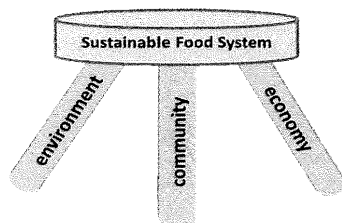
Note even though the US has a "high" level of food security, if you change the scale to look at individual localities, you will find areas within the US that also struggle with food security

See book pages: 342-348



## Sustainable Agricultural Solutions

**Sustainable Agriculture-** farming practices that carefully manage natural resources and protect environmental conditions to help future generations, while maintaining farm profits.



**Environment:** reduce pollution and waste

**Community:** good working conditions and healthcare

**Economy:** employment and fair trade (helps developing countries get a fair price for their products)

[https://serc.carleton.edu/integrate/teaching\\_materials/food\\_supply/student\\_materials/1193](https://serc.carleton.edu/integrate/teaching_materials/food_supply/student_materials/1193)

**World Trade Organization(WTO)-** seeks to make trade freer through removal of tariffs and more, that distort the market.

→ Domestic subsidies= market distortions and prevent free trade in agricultural goods

**Organic agriculture-** a farming system that promotes sustainable and biodiverse ecosystems by using natural processes rather than synthetic inputs.

- Fastest growing sector of agriculture today
- Australia, Argentina, and Brazil have largest areas under organic management, however, largest percent (25%) of organic land is found in Europe
- Products do not contain any GMOs (the USDA determines if a product can have the organic sticker on the packaging)



<https://www.ams.usda.gov/rules-regulations/organic/organic-seal>

**Eat Local Movements-** Encouragement of utilization of local products, distribution, and production, which replaces national/international food systems (Ex. Local Farmer’s Markets)

Pros	Cons
<ul style="list-style-type: none"> <li>❖ Less transportation costs</li> <li>❖ Local economy boost</li> <li>❖ Fresher foods</li> </ul>	<ul style="list-style-type: none"> <li>❖ More expensive local produce</li> <li>❖ Local pollution due to livestock methane and/or methane</li> </ul>

**Community Supported Agriculture (CSA)-** a network of individuals, who support one or more local farms, with growers and consumers sharing the risks and benefits of food production

Pros	Cons
<ul style="list-style-type: none"> <li>❖ Save money</li> <li>❖ Support local farms</li> <li>❖ Fresh foods</li> </ul>	<ul style="list-style-type: none"> <li>❖ Transportation barriers</li> <li>❖ Increased food preparation labor</li> <li>❖ Not all CSAs are profitable</li> </ul>

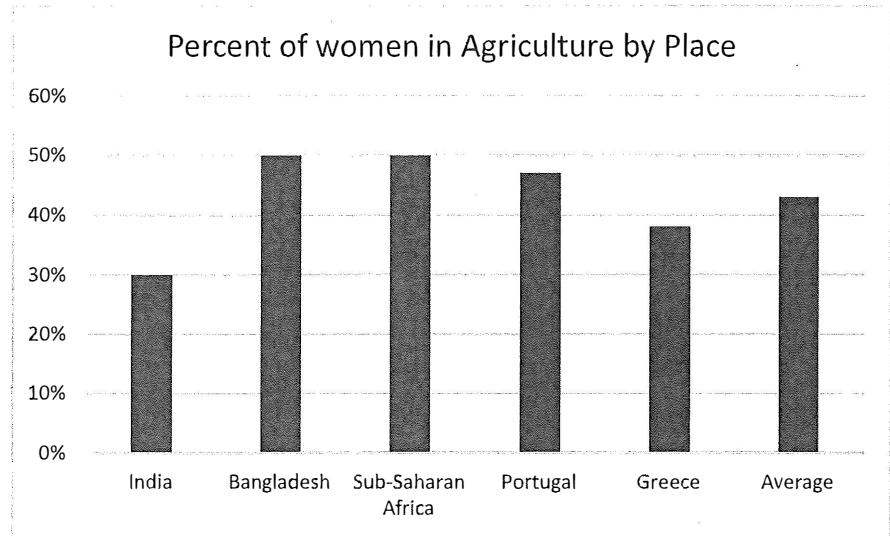
**Urban Agriculture-** a practice to help improve food security at the household level using vacant lots, rooftops, balconies, or other spaces to grow food

## WOMEN IN AGRICULTURE

- Women are approximately 43% of the agricultural workforce overall  
 -This fluctuates from place to place.

(made in excel with the data by me)

- ~30% in India
- ~50% in Bangladesh
- ~50% in Sub-Saharan Africa
- 47% in Portugal
- 38% in Greece
  
- ~10% deviation from the mean



- In Sub-Saharan Africa, South Asia, and North and Northeast Africa, the percent of women working in agriculture is greater than the percent of men working in agriculture  
 -This means that if the female and male populations of those regions were equal and this statistic wasn't changed, more females would be working in agriculture than men.
- Women in agriculture have unequal (access to):
 

-Pay	-Training
-Finance	-Insurance
-Education	-Seeds
-Rights	-Water
-Land	-Tools
-Livestock	-Aid and resources in general
- If women had the same access to resources as men, then it is speculated:
  - 20-30% Farm yield increase
  - 2.5-4% Total Agricultural output increase in developing countries
  - 12-17% Hunger reduction of the world

Sources: <http://www.fao.org/docrep/013/am307e/am307e00.pdf> and

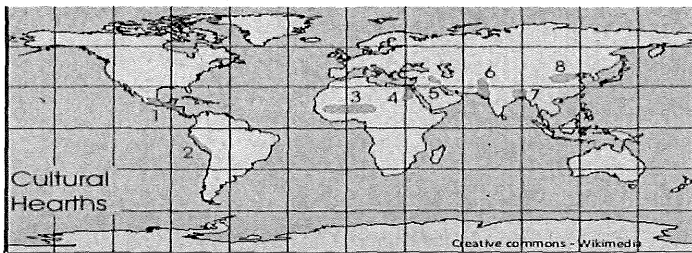
[http://ec.europa.eu/eurostat/statistics-explained/index.php/Agricultural census in Portugal](http://ec.europa.eu/eurostat/statistics-explained/index.php/Agricultural_census_in_Portugal)

For more info, visit **page 326** in the Textbook

# 1<sup>st</sup> Urban Revolution

## 1<sup>st</sup> Urban Revolution

- The innovation of a city
- **Most of the Urban Hearths overlapped with the Agricultural Hearths**
- Occurred in 6 different hearths (independent invention)
  - Mesopotamia
  - Nile River
  - Indus River Valley
  - Mesoamerica
  - Wei/Huang Rivers
  - Ganges River Valley



- |                      |                        |
|----------------------|------------------------|
| 1. Mesoamerica       | 5. Mesopotamia         |
| 2. Andean America    | 6. Indus River Valley  |
| 3. West Africa       | 7. Ganges River Valley |
| 4. Nile River Valley | 8. Wei/Huang Rivers    |

### Independent Invention

- When there are two or more hearths without contact or communication with each other from which an innovation originates.

### Hearths

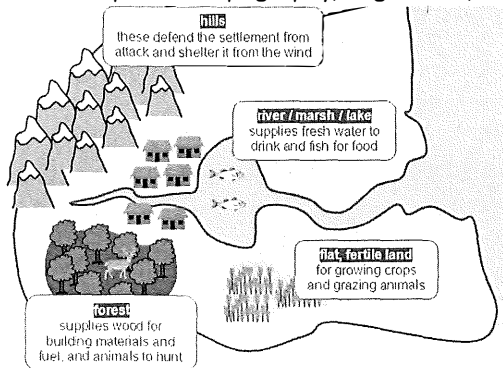
- A place or region where an innovation, idea, belief, or cultural

### Causes and Effects of the 1<sup>st</sup> Urban Revolution

- **Causes:** Social Stratification and surplus of food
- **Effects:** Creation of cities and creation of population clusters

### Site

- The physical characteristics of a place.
- For example: It's topography, vegetation, and water resources

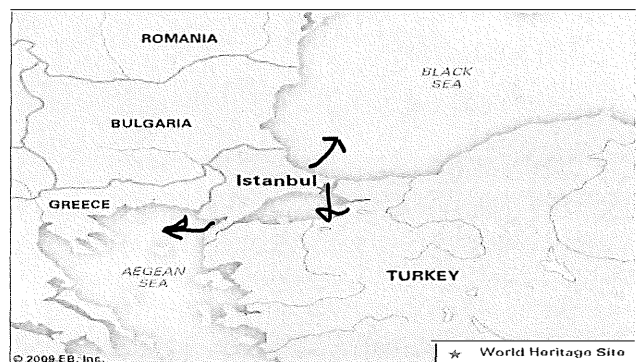


This picture is an example of a site, on the map it displays physical characteristics (resources) that are located in that area.

<http://geography.parkfieldprimary.com/the-united-kingdom/population-and-migration>

### Situation

- The geographic context of a place
- For example: Its political, economic, social characteristics



Istanbul's situation allows for easy trade because of its position beside the sea.

<https://www.britannica.com/place/Istanbul>

# The Influences of Urbanization

**Urbanization:** The concentration of people in urban areas

## Government Policies

- Create incentives for urban growth
- Urbanization = \$, so governments want people to come to cities
- Ex: PULL factors like cheap housing and fewer regulations on immigrants



<https://blog.emakina.pl/2018/09/27/3-new-entities-join-the-emakina-group/#.Xok1UcYpiM>

## Economic Development

- People are resources!
- As a nation develops, people come to the city for non-farming jobs
- The city makes money and urbanizes as people spur economic activity



[https://www.freepik.com/premium-vector/money-sack-business-people-icon\\_2201068.htm](https://www.freepik.com/premium-vector/money-sack-business-people-icon_2201068.htm)

## Transportation and Communication

- Infrastructure: services and structures that are the basis of a city's economy
- Infrastructure allows for a city to expand because places become more connected (globalization!)
- Ex: roads, public transportation, cell phones



<https://www.autodesk.com/redshift/aging-infrastructure/>

## Migration

- As a nation becomes more developed, fewer farming jobs are needed, so people move to the cities looking for factory jobs
- Rapid RURAL → URBAN migration, which causes a concentration of people in cities (urbanization!)



<https://study.com/academy/lesson/migration-from-rural-to-urban-settings-in-europe-and-the-us-history-and-effects.html>

## Population Growth

- A high rate of population growth = a very populated city
- A high population causes economic development BUT
- It also leads to slums and shanty towns where poor people can't escape the cycle of poverty
- Has an upside and a downside



<https://wz.com/india/1003519/attached-baths-running-water-street-lights-what-indias-slum-dwellers-seek-in-a-home/>

For more info, see page 234 in the textbook!

# Cities Across the World

**Urbanization** - increase in the proportion of a population living in urban areas

## RATE of Urban Growth

- Annual percentage increase in urban population
- Highest rates of urban growth will be in DEVELOPING regions for next two decades
- Ex: India, China, Nigeria

High rates of urban growth can lead to rapid urbanization in developing regions that presents many problems when poorly managed and can lead to the creation of...

**Megacities** – cities with at least 10 million residents

- Associated with unemployment, slums, traffic, and pollution
- Ex: NYC, Mexico City, Beijing, etc.

## LEVEL of Urbanization

- Percentage of people living in urban places in an area
- Higher among DEVELOPED countries (about 75%)
- Ex: North American cities

**Metacities** – cities with at least 20 million residents (most massive)

- Ex: Tokyo

With the recent increase of megacities and metacities usually comes poor planning for rapid urbanization and the creation of...

**Squatter Settlements** – residential developments characterized by extreme poverty, usually on the outskirts of cities, whose occupants have no legal rights to the land (ex: shantytowns in Africa)

- Poor infrastructure
- Residents work in informal job sector that is not overseen by government
- In peripheral areas of LDC cities
- Slums are legal and are only squatter settlements if developed illegally
- One successful slum alleviation tactic is: **microfinancing** – providing financial services to low-income individuals

### These are the world's fastest growing megacities

Annual rate of change between 2010-2015

WORLD ECONOMIC FORUM



Source: UN World Urbanization Prospects

<https://www.weforum.org/agenda/2016/11/the-10-fastest-growing-megacities-in-the-world/>

Look at the graph above and notice how all of the fastest growing megacities are in developing regions.



[https://www.slideshare.net/rsuwgmeeting\\_org/slum-conditions-and-shelter-policy-iran-2012](https://www.slideshare.net/rsuwgmeeting_org/slum-conditions-and-shelter-policy-iran-2012)

The image shows the factors that lead to urban slum formation.

# Cities in North America

## •DECENTRALIZATION,

also called SUBURBANIZATION-growth on outskirts of an urban place or city—an example of decentralization

- pulls businesses and people away from central cities and into suburbs, *spreading out*

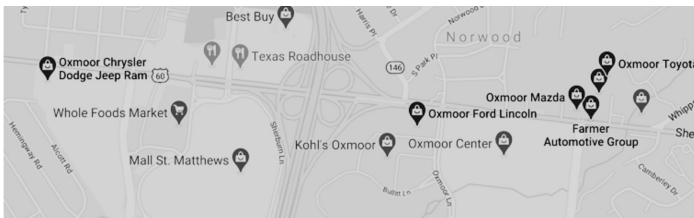
- causes include (not limited to); edge cities, interstate highways, GI Bill

- AGGLOMERATION, grouping of like industries or businesses, can be a result of decentralization.

- residential areas/neighborhoods, car dealerships, strip malls/shopping centers are together outside of the central city.



<https://time.com/107808/census-suburbs-grow-city-growth-slows/>



Ex: Shopping centers/malls grouped closely together along with seven car dealerships in Louisville, Kentucky.

## •SPRAWL

- a process in which urban landscapes are transformed

- the speed of land becoming urbanized exceeds the population growth

*\*urbanizing land is to develop it for commercial, residential (living) or industrial purposes.*

- Sprawl leads to low-density land use and increased costs of utilities and services

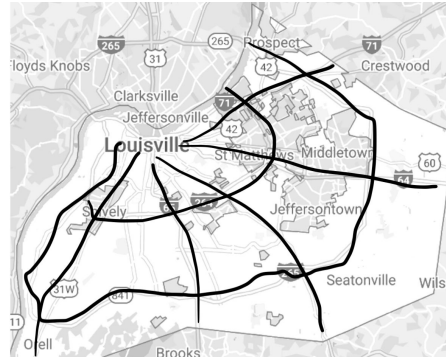
- Relies on cars for transportation, more pollution

- Adds strain to infrastructure due to the addition of more sewer and water line and more roads.

## SUBURBS

- residential areas that have been built up on the outside of cities

- surround the central city



Interstate highways in Louisville, Kentucky that connect the suburbs to the central city.

San Diego, California, central city/CBD, and suburbs outside of the city with residential areas, grocery stores and schools.



## •EDGE CITIES

- An edge city has MORE jobs than beds.

- It is a place that is outside, on the *edge* of a city with many jobs but is not a residential place.

- Lots of businesses, entertainment, and shopping activity in places like strip malls and shopping centers.

- a “new downtown,” though NOT a CBD

- Louisville does NOT have one

## •EXURB

- a flourishing place out past suburbs that are outside of a city, low housing density, usually higher SES.

## •BOOMBURB

- a very fast growing residential area that is located in the outer district(s) of a city.

TEXTBOOK PAGES: 231, 240, 243, 250, 251

## World Cities and Globalization

Indicators of a World City:

- Strong integration in global economy
- Political influence
- International Airport
- Arts + Entertainment

Examples:

Paris, Chicago, Hong Kong, Los Angeles, Milan, Singapore (and the 3 below)

World City:

A principal center of global economic power that significantly influences the world's business.

**IMPORTANT CITIES!!!**



Node of Influence:

- Economic (trade, business)
- Cultural (fashion, tv, pop culture)
- Information (news)

*Hinterworld:* the global trade area of a world city (goes against Christaller's local-only model)

- Headquarters of MNCs
- Advanced professional services (banking, legal)

*World cities occur because businesses want to locate places where they can connect to as many places as possible, internationally to locally.*

Connections:

Linked through trade, travel, online interaction, flow of information, etc.

Gravity Model:

Places with greater populations are more closely connected  $(Pop\ 1 \times Pop\ 2) / Distance^2$

Globalization in World Cities:

- Links and networks cause greater interconnectedness between world cities across the globe
- The reliance on trade and information coming from other world cities cause interdependence between these places
- It is getting easier and easier to connect from a world city to places around the world
- Johannesburg, a heavily European city, is the only world city in Africa, showing the uneven distribution of world cities and globalization



See textbook pages 238-240 for more info  
(See Figure 8.9 for a larger image)

## The Size and Distribution of Cities

### Rank-size rule

The nth most populous city in a country will have 1/n times the population of the most populous city.

- The 2nd largest city will have 1/2 the population of the largest city, the 5th largest city will have 1/5 the population, and so on.

The United States approximately follows rank-size rule:

New York	8,537,673
Los Angeles	3,976,322
Chicago	2,704,958
Houston	2,303,482
Phoenix	1,615,017

<https://www.census.gov/content/dam/Census/newsroom/releases/2017/cb17-81-table3-most-populous.pdf>

- Creates more even development between cities
- More common in MDCs (with exceptions such as India and China)

### Primate Cities

The most populous city has a population that is at least 2 times as large as the next most populous city.

Mexico City is a primate city for Mexico:

Mexico City	12,294,193
Iztapalapa	1,815,786
Ecatepec	1,655,015
Guadalajara	1,495,182
Puebla	1,434,062

<https://www.geonames.org/MX/largest-cities-in-mexico.html>

- Creates uneven development:
  - Investment into primate cities -> Primate cities become centers of business, industry, politics, and culture
  - > Other cities left underdeveloped
- More common in LDCs (with exceptions such as France and England)

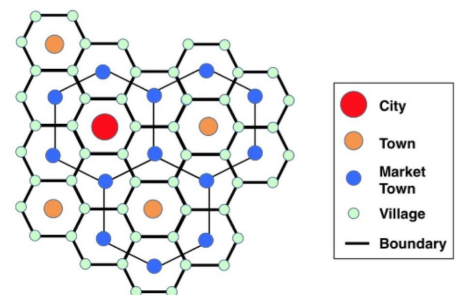
### Walter Christaller's Central Place Theory

Central places distributed based on threshold and range:

- Threshold: The smallest number of consumers required to make a business profitable.
  - More specialized businesses (ex. brain surgeons) have high threshold and need to be in larger central places to survive.
  - Less specialized businesses (ex. gas stations) have low threshold and will be found everywhere
- Range: The maximum distance a consumer will travel for a good or service.
  - Rare, luxury goods (ex. Tesla cars) have high range, while common items like bread have low range.

Range and threshold give every central place a hexagon-shaped market area:

- Central places are distributed in a hexagonal grid pattern, with the largest central places spread out the most, and the smallest central places closest together.
- Central places are interdependent - each central place's market affects the size of other markets.



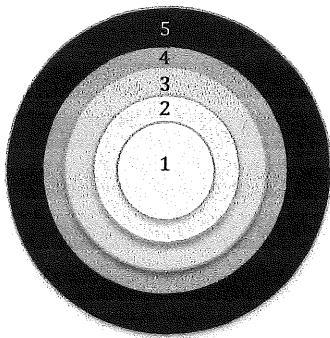
<https://www.aboutcivil.org/Chrystaller-Central-Place-Theory>



# North American City Models

- Multiple models can generalize changes in American (and Canadian) patterns of urban spacial use over time
- **Models change with transportation innovations**
- Models show trend of decentralization, a shift of activity away from the CBD
  - CBD- the central bussiness district, the “downtown” area. The economic focus of an urban area, usually where the city was founded eg Manhattan, Downtown Louisville

## Burgess Concentric-Zone Model

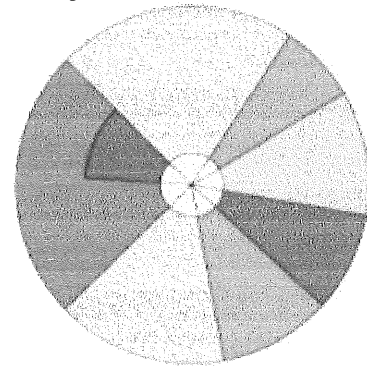


1. CBD
2. Transition Zone
3. Low Income Housing
4. Middle Income Housing
5. Commuting Zone

Main transportation- Walking, horses

- Relies on Bid-Rent Theory- Land is cheaper towards central node (CBD)
  - Shows more intensive use closer and more extensive use further from CBD
    - Much like Von Thünen model
- Poorer people must live closer to CBD to walk, meaning they live very densely eg Butchertown
- Rich can afford horses, live further from CBD in large houses eg Old Louisville

## Hoyt Sector Model

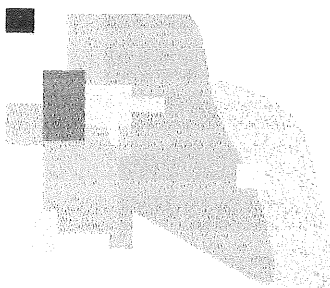


<https://pranilblogs.wordpress.com/2016>

Main transportation- Streetcar

- Shows wedges of similar areas, sectors, radiate from CBD along streetcar lines
- Affordable transportation allows city to expand
- Poor cluster near factories, streetcar lines
- Activities agglomerate in sectors, often sectors for retail, education, separate residential areas for different income levels

## Harris-Ullman Multiple Nuclei Model



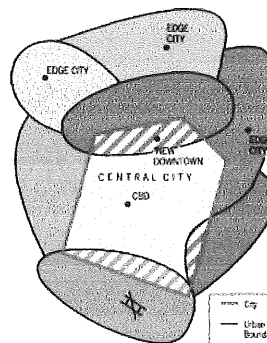
- Central Business District
- Wholesale, light manufacturing
- Outlying business district
- Low class residential
- Medium class residential
- High class residential
- Residential suburb
- Heavy manufacturing
- Industrial suburb

Main transportation- Car

[https://en.wikipedia.org/wiki/Multiple\\_nuclei\\_model](https://en.wikipedia.org/wiki/Multiple_nuclei_model)

- CBD continues to lose importance as edge cities develop
  - Edge cities develop clusters of economic activity outside CBD, increasing complexity and decentralization
- Cities continue to sprawl with transportation
- Many industries still cluster in certain areas

## Galactic City Model



<https://www.thinkinglink.com/scene/74172286207891865>

Main transportation- Cars on Interstate-highways

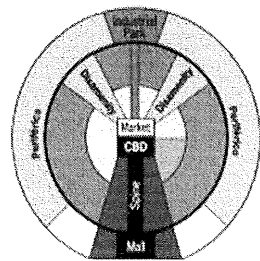
- Sprawl, decentralization and suburbanization at their greatest extent
- Lack of taxable economic activity leaves many cities poor, leading to mergers like the Louisville- Jefferson County merger in 2003
- Most urban areas become almost entirely dependent on cars for transportation
- More edge cities appear as rich mostly live in suburbs

## Urban Models Outside North America

### Latin American Cities Model (Griffin-Ford Model):

- Main Comparison: Spine that extends from the CBD surrounded by high-class residents and connects to the mall
- Created by: Ernest Griffin and Larry Ford in the 1980s
- “Periferico” zones are slums, squatter settlements or shantytowns that contain lower-class people (AKA Barrios and Favelas)
- The Perifericos are also where the industrial areas are located
- It is the opposite of North American models, further away from CBD the poorer the people
- The model shows where the rich and poor are located in relation to the spine
- High class difference
- The gentrification zone is where the preserved historical buildings are located
- Examples: Buenos Aires, Argentina; Bogota, Colombia; Santiago, Chile; Caracas, Venezuela; Havana, Cuba; Mexico City, Mexico

A NEW AND IMPROVED MODEL OF LATIN AMERICAN CITY STRUCTURE



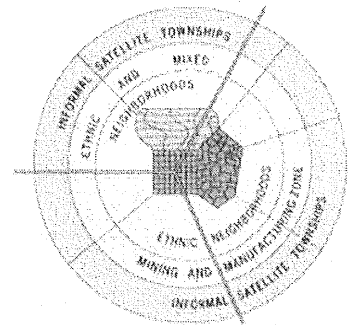
- Commercial
- Market
- Industrial
- Zone of Migration
- Zone of Suburbanization
- Zone of peripheral squatter settlements
- Sub-Residential Sector
- Gentrification
- Middle-Class Residential Area

<http://valdeonline.weebly.com/global-city-models.html>

### Sub-Saharan African Cities Model (De Blij Model):

- Main Comparison: There are 3 CBD's: Colonial, Market and Traditional
- The colonial CBD has aspects of European cities, because it is from when the city was colonized
- The traditional is where vertical integration occurs
- The market is basically an open-air market
- The CBDs are surrounded by ethnic neighborhoods that represent the different types of the ethnic groups of that region before it became urbanized
- Outside of the neighborhoods are the industrial zones
- The poverty is spread throughout the city, meaning that there isn't much of a class difference at all
- The informal satellite townships are the slums/squatter settlements of the African cities
- Examples: Accra, Ghana; Ouagadougou, Burkina Faso

A MODEL SUBSAHARAN AFRICAN CITY



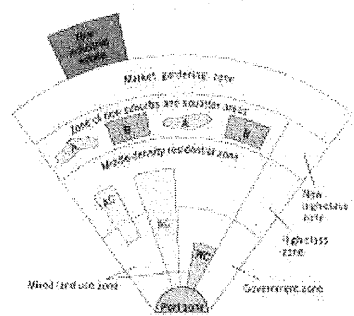
- Colonial CBD
- Traditional CBD
- Market Zone

<http://slpaphumangeography.wikifoundry.com/page/Urbanization+Models+and+Notable+People>

### Southeast Asian Cities Model: (McGee Model)

- Main Comparison: The cities have a port zone near bodies of water
- Created by T.G. McGee in 1967
- There is no actual CBD, it's dispersed throughout the city
- There is a very large middle-class population in the alien commercial zones
- The higher-class citizens live on the right edge of the city by the government zone and away from any industrial areas or commercial areas
- There is a specific zone for slums and new suburbs right above the middle-class area, the suburbs and squatter areas are right next to each other
- The different zones represent the dispersed CBD: Western Commercial, Alien Commercial, Mixed Land-Use, and Government
- Alien commercial areas are home to Asian merchants
- Newer industrial Parts are located on the outskirts of the city
- Examples: Hong Kong, China; Manila, Philippines; Jakarta Indonesia; Beijing, China

A GENERALIZED MODEL OF LAND USE AREAS IN THE LARGE SOUTHEAST ASIAN CITY



- Squatter zone
- Alien commercial zone
- Western commercial zone

<https://aphug.wikispaces.com/Models+to+Know>

Middle East (Islamic Cities): They are centered around a mosque, very **private** and share many structural similarities with European Cities.

European cities: They have medieval traits, are pedestrian and bike friendly, public transportation is cheap and central cities are the ideal living location. They have **green belts** that are used to stop complete urbanization and to retain some aspects of the natural land.

Further information can be found on pages 244-247 of the textbook

# Density and Land Use

Density- number of people per square mile

## How Culture Affects Land Use

### Middle East-

- Islamic cities **emphasize privacy** which reflects the culture of Islam
  - Centered around a mosque
  - Have separated ethnic neighborhoods based on **religion** and **ethnicity** (a shared culture)
  - Depends on foot transportation; lots of open- air markets and compact residential housing
  - NO squatter settlements because of the Middle East's oil dependency

<https://www.kwintessential.co.uk/resources/guide-saudi-arabia-etiquette-customs-culture-business>



Marketplace in a Saudi Arabian Islamic City

## How Religion Affects Land Use

- Religion can determine how you're community is set up and how it runs
- An example could be how spread out buildings are or the arrangement of public spaces
- Ex: Judaism emphasizes community, so houses are close together and the synagogue is accessible to everyone
- Ex- In Korea Geomancy is used- landmarks to determine how to arrange man-made space for balance of the earth's energy



<https://www.timesofisrael.com/munich-conflict-nixed-after-pro-israel-jewish-speaker-rejected/>

## How Infrastructure affects Land Use

### COMPARE AND CONTRAST

**Infilling**- The use of vacant land and property within a built-up area for further construction or development

- High population density
- Building up from a already developed land
- Ideal for pedestrians

**Sprawl**- cities are developed more spread out

- Building up undeveloped area of land to make more room
- Think Suburbia
- Dependent upon availability to infrastructure (highways, cars, buses, trains, etc.)



<https://rockgu.wordpress.com/2010/10/07/the-court-yard-house/>



<https://www.everythingconnects.org/urban-sprawl.html>

# INFRASTRUCTURE

● The location and quality of a city's infrastructure directly affects its spatial patterns of economic and social development.

## Infrastructure in MDCs

- Will have higher quality infrastructure.
- Because the infrastructure is more developed, people won't need to live close to the sources they need (think electricity lines or water pipes.)
- Infrastructure like roads (high ways, interstates) and shipping ports create a diverse economy that is strong throughout the country.

## Infrastructure in LDCs

- Will have lower quality infrastructure.
- People will crowd and live near the infrastructure that is available.
- Due to the lack of infrastructure, the economy will be less diverse. Where there is good infrastructure, the economy surrounding that area will also be strong.

## types of infrastructure

- |                     |             |
|---------------------|-------------|
| 1:sewage/irrigation | 4:hospitals |
| 2:roads             | 5:ports     |
| 3:electric          | 6:schools   |



how infrastructure's location and quality affects where economic and social development happen:

1: Where adequate sewage and irrigation systems are in place, social development will occur there. This is the same with economic institutions.

2: Alongside roads, businesses will appear. The higher quality the roads, the higher quality the businesses (and the better the economy will be within that area.)

3: The more electricity spreads throughout a city, the more social development is likely to happen. In areas with electricity apparent, sectors of the economy will also be apparent.

4: In LDCs, people will need to live closer to hospitals, so social development will occur near healthcare facilities. In MDCs, hospitals are more accessible, so the statement above is less applicable.

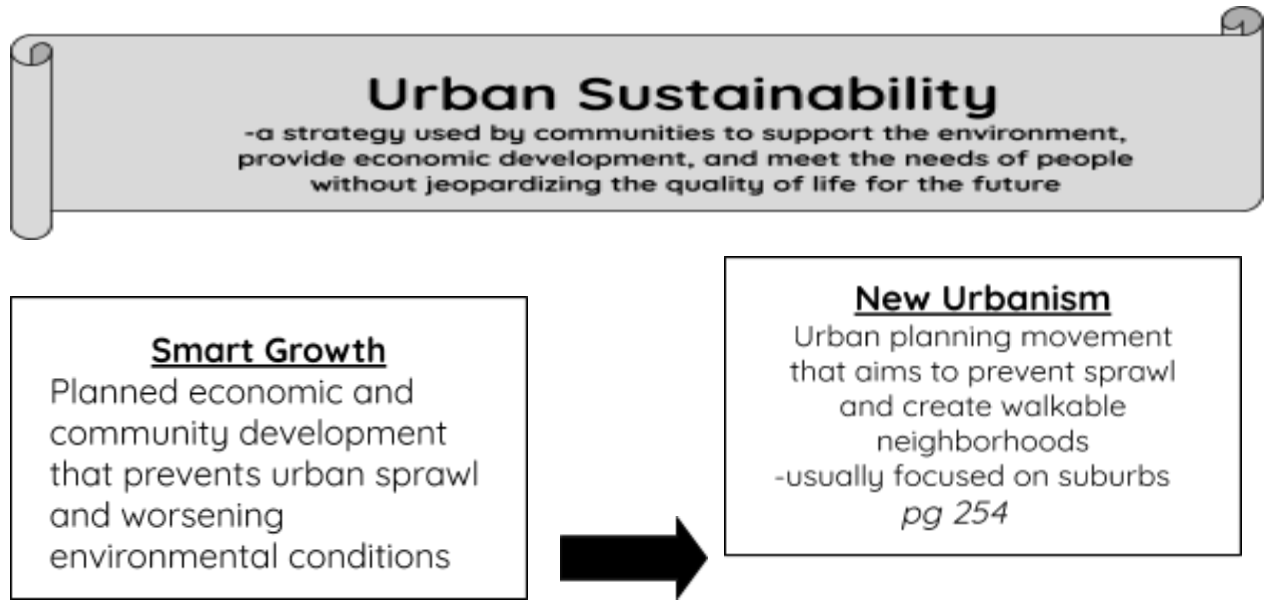
5: Ports allow for diverse economies to take place (trade and shipping.) People will live near these ports and engage in economic interactions near the ports as well.

6: The higher quality the schools in a city are, the more people will be inclined to develop their society and their economy.

“spatial patterns” - The pattern that can be found when looking at where things are placed.

“economic development” - A level of how much the economy in an area has developed. In MDCs, the economy will be more developed, and in LDCs, the economy will be less developed.

“social development” - A level of how much the society of an area has developed. Indicators of social development include (but are not limited to) the quality of schools, visual & performing arts places, and types of careers.

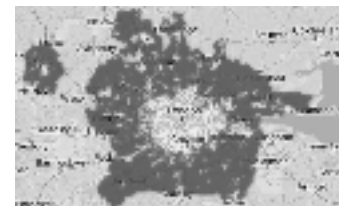


## SUSTAINABLE DESIGN INITIATIVES AND ZONING PRACTICES

- ★ **Mixed Land Use:** a combination of different types of land use within a neighborhood such as residential, commercial, and industrial pg 255
  - Walkability increases due to needs being within walking distance; this leads to less automobiles being used (ex. Norton Commons)
- ★ **Transport-oriented development:** The development of more public transportation reduces air pollution caused by car emissions.
- ★ **Inclusionary Zoning:** local policies that requires a part of new housing to be affordable by people with low to moderate incomes

## SMART-GROWTH POLICIES

- ★ **Green Belts:** undeveloped land that surrounds a city on which building is restricted
  - **sprawl is confined** and the environment is protected
  - Ex. Green Belt surrounding London, England
- ★ **Redevelopment of Brownfields:** sustainably reusing a former industrial or commercial site that may be contaminated
  - Effects: Regenerated environment, job growth occurs, new housing
  - Ex. Successful redevelopment in Union, SC turning a former textile site into affordable housing and green space




<https://www.telegraph.co.uk/news/earth/greenpolitics/planning/9708387/interactive-map-Englands-green-belt.html>

## OUTCOME:

**Slow Growth Cities:** cities that develop slower than normal cities due to smart-growth policies being implemented

# Urban Design Initiatives - Impacts

## Pros

<p><b>Reduction of Sprawl</b></p> <ul style="list-style-type: none"><li>● Sprawl is when the rate of urbanization exceeds the rate of population growth</li></ul>	<p><b>Improved Housing Options</b></p> <ul style="list-style-type: none"><li>● Houses become more industrialized. They become bigger with a more modern look.</li></ul>
<p><b>Improved Walkability/Transportation</b></p> <ul style="list-style-type: none"><li>● More walkable cities and sidewalks start to appear, which can lead to a more eco-friendly city with less pollution</li></ul>	 <p><i>This is Denver, Colorado, an example of a walkable city.</i></p>

## Cons


<p><b>Increased Housing Costs</b></p> <ul style="list-style-type: none"><li>● This means lower-class citizens have nowhere to go</li></ul>	<p><b>Loss of Place</b></p> <ul style="list-style-type: none"><li>● Building teardowns can eliminate historical attachments in cities</li></ul>
<p><b>Increased de facto Segregation</b></p> <ul style="list-style-type: none"><li>● Poorer minorities are forced to move out as more higher class citizens move in</li></ul>	 <p><i>This is an example of how increased urbanization can cause placelessness.</i></p>

Image Sources:

<https://www.curbed.com/2019/6/24/18715939/real-estate-development-walkable-urbanism>

<https://www.placeness.com/the-future-of-places-comments-on-a-conference/>

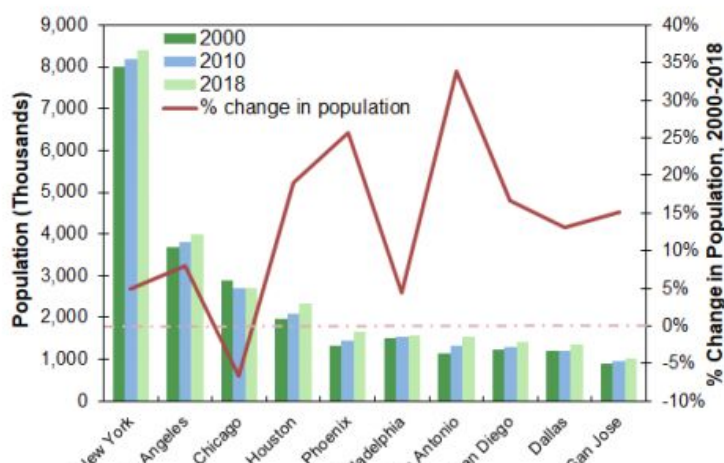
# Urban Data

## What is a census?

- An official count of a population, usually recording other details as well
- Data can be seen on a national, state, county, and city block scale.
- This data can be used to make changes.

## How does census data show changes in population size and composition in urban areas?

- Geographers can look at different scales for more specific data, and compare with previous censuses to see change.
- With census data you can see emmigration/immigration, also household composition, sex ratios, ethnicity, race.
- The census data can be used to change the number of representatives that state has in the house, and it can be used for a lot more.



Population changes over time using previous and recent census data

<http://css.umich.edu/factsheets/us-cities-factsheet>

## What is Field Research and how can it show information?

- A **qualitative method of data collection** that has a goal to observe, interact, and understand people in their home environment.
- Five main methods of **field research**: direct observation, participant observation, ethnography, qualitative interviews, and case studies.
- **Direct observation** is a method where all of the data is collected by observations.
- In **participant observation** the researcher is involved in the study as a participant.
- **Ethnography** is a more intense observation of social research.
- **Qualitative interviews** are closed ended questions asked straight to the participants.
- A **case study** is a deep analysis of a person's situation.

## What is narrative inquiry and how does it show information?

- It is gathering information for research purposes and telling it through a story.
- Could be told in stories, interviews, journals, photographs, etc.
- The narratives can show perspectives of people or groups of people in depth so the reader can understand how they feel about the topic.

See textbook pages 171-175 for more information

## Challenges of Urban Changes

### Residential Discrimination

- **Redlining-** As a result of the biased process of refusing home loans based on race, whites took advantage of this lending program and bought new homes in the suburbs. So black migrants from the south moved into the older “hazardous” homes in the central city. For example, in Baltimore, a citizen discovered a bank had erased black neighborhoods from maps used for determining mortgage lending.
- **Blockbusting-** Realators sold homes to racial/ethnic minorities and used scare tactics and panic selling to convince white residents to sell their homes because the neighborhood was “decreasing in value”. This contributed to white flight and suburbanization.
- **Lack of Affordable Housing-** as neighborhoods in the center city are gentrified, the former lower-income residents can no longer afford housing and are displaced. Additionally, houses being built in the suburbs are catered to the middle-class and upper class residents who can afford private transportation.
- **Environmental Injustice-** the disproportionate exposure of minority communities to pollution in the environment (i.e. chemical plants, garbage dumps, etc.).



### Environmental Effects of Urban Changes

- Suburbanization and urban sprawl leads to increased dependency on cars meaning increased carbon emissions and low-density land use so there is less land for farming.
- Additionally, the more land that comes with suburban homes means increased water use and irrigation.



### Infrastructure

- Urban sprawl causes infrastructure strain because the services found in the center city need to be replicated in the suburbs (i.e. Roads, waste management, water lines, etc.)

### Effects of Urban Changes on Crime Rates

- Because of the upper and middle classes migrating to the suburbs, the poor move into the center city and live in densely populated areas, -closer to their jobs-. There are increased crime rates in the areas with the densely populated poor in the older, decaying central city.

### Development of Disamenity Zones

- As urban decay occurs and unemployment increases, land value decreases, and decreased demand causes large-scale property abandonment.
- As people migrate from the central city and to the suburbs, businesses follow them and buildings are abandoned, vandalized and become breeding grounds for crime. For example the Favelas in Rio de Janeiro.



### Picture Credits

<https://www.google.com/url?sa=i&url=http%3A%2F%2Fmotorcitymuckraker.com%2F2014%2F06%2F06%2Fup-close-8-most-abandoned-neighborhoods-in-detroit%2F&psig=AOvVaw1q2dAMie5JXUYV-ONKDV7&ust=1583686415286000&source=images&cd=vfe&ved=0CAMQjB1qFwoTCQjlsSubpiOgCFQAAAAAdAAAAABAD>  
[https://www.google.com/url?sa=i&url=https%3A%2F%2Fwww.dmagazine.com%2Ffrontburner%2F2017%2F08%2Fredlining-dallas-maps%2F&psig=AOvVaw1btMexXJFA5mMaCsCjnATV&ust=1583686903808000&source=images&cd=vfe&ved=0CAIOjRqFwoTCKjnps\\_rjOgCFQAAAAAdAAAAABAD](https://www.google.com/url?sa=i&url=https%3A%2F%2Fwww.dmagazine.com%2Ffrontburner%2F2017%2F08%2Fredlining-dallas-maps%2F&psig=AOvVaw1btMexXJFA5mMaCsCjnATV&ust=1583686903808000&source=images&cd=vfe&ved=0CAIOjRqFwoTCKjnps_rjOgCFQAAAAAdAAAAABAD)  
<https://www.google.com/url?sa=i&url=https%3A%2F%2Fwww.khanacademy.org%2Fhumanities%2Fus-history%2Fpostwar-era%2Fpostwar-era%2Fa%2Fthe-growth-of-suburbia&psig=AOvVaw2te1YM9gAllLx8kIVBbZie&ust=1583686765157000&source=images&cd=vfe&ved=0CAIOjRqFwoTCKiOjIXriOgCFQAAAAAdAAAAABAD>

For more information see pages 248-253 in the textbook



# URBAN RENEWAL

**Gentrification** - When people purchase old buildings in poor neighborhoods to revitalize them. (Is normally when middle class comes back to the central city). (Pg. 249, 250)

**Pros**



- increases property values
- boosts city's overall economy due to increasing property tax revenues
- can act as a centralizing force

**Cons**



- lower income residents have nowhere to go (due to higher property values)
- economically challenges poor urban residents since the city is no longer affordable

<http://doughoyka.com/Stop-Gentrification>



**Tear Downs** - The tearing down of old buildings for new ones by the government when in blight.

<http://www.toledoblade.com/local/2012/05/09/Apartments-start-to>



**Pros**



- can stop ongoing blight
- areas are more aesthetically pleasing
- increases property values

**Cons**



- displaces long-standing neighborhoods and lower income residents
- can decrease the historical attachments of a place

**Conventions** - When the local government draws conventions (a gathering of individuals based on a common topic) to the city.

**Pros**



- city sales can be increased
- attracts more people
- generates activity

**Cons**



- in attempts to compete with other cities, when convention prices are lowered so do profits
- is not a long term solution since visitors won't stay/temporary fix

<https://ifanboy.com/articles/get-schooled-proper-comic-book-convention-attendance/>



**Example of Gentrification:**

Tel Aviv, Israel, was once an area reserved for commerce and trade. Now, it is an area with well-tended beaches, Bauhaus-inspired buildings, etc. After a growth in population the old buildings were revitalized and redesigned.

**Example of Tear Downs:**

In 1960s, many old houses get torn down in an attempt to replace them with a more modern landscape in Louisville, Ky.

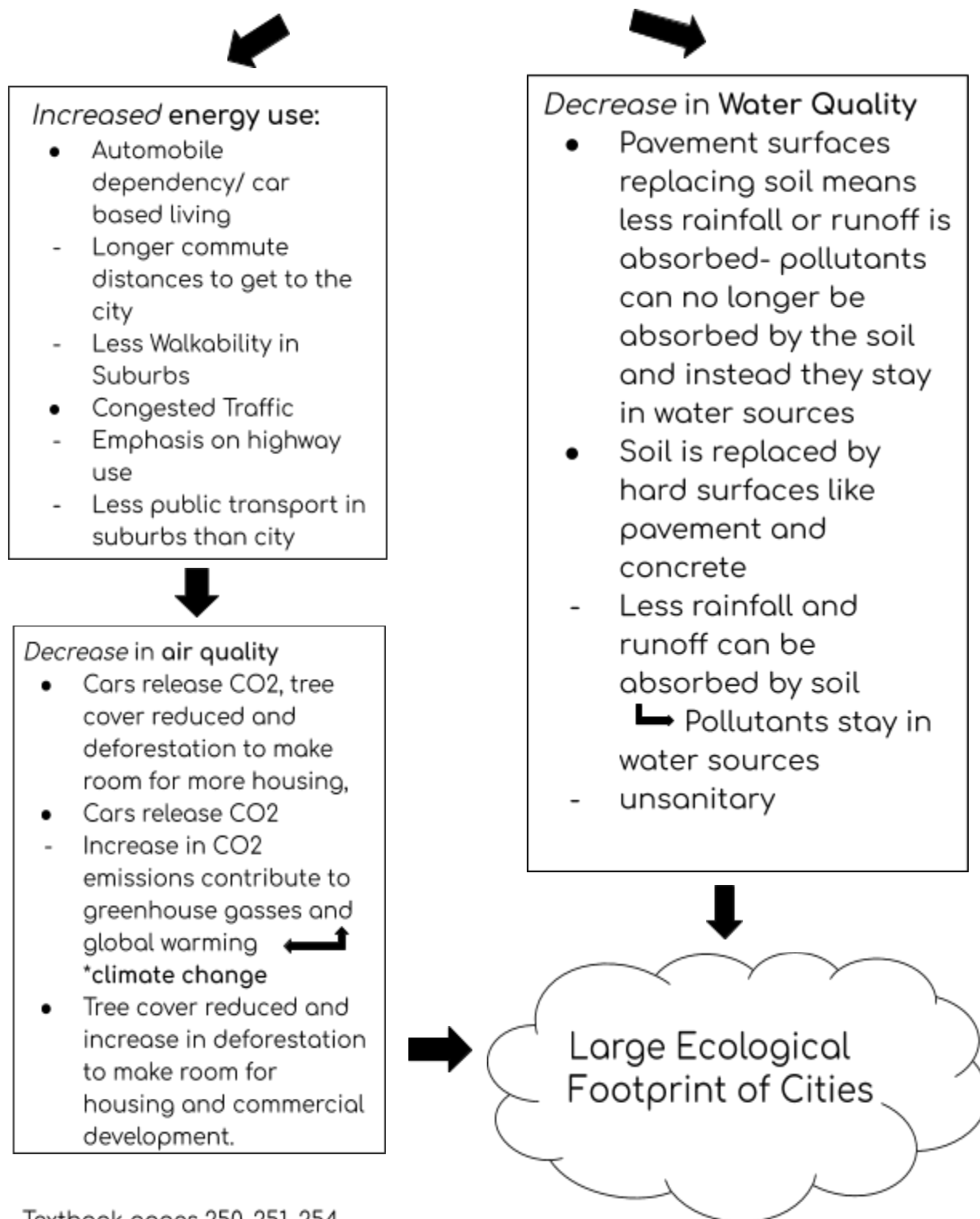
**Example of Conventions:**

A convention center opened up in Louisville, Ky, to attract people with a variety of interests to visit and spur activity.

Reference Pages 249 and 250 for more information on urban renewal and revitalization

# Challenges to Urban Sustainability

Urban and Suburban Sprawl- The rapid and unplanned growth of cities in an unsustainable fashion.



## Responses to Urban Sustainability Challenges

The idea that a city can be organized without excessive reliance on the surrounding countryside and be able to power itself with renewable sources of energy.

**Smart Growth-** planned economic and community

to development that attempts to curb urban sprawl and worsening environmental conditions. →

**New Urbanism-** ideology striving

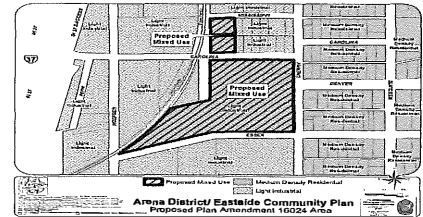
to prevent sprawl and create walkable neighborhoods.



❖ **Mixed Land Use-** enables a range of land uses including residential, commercial, and industrial to be co-located in an integrated way.

➤ *Walkability* is enhanced because now you can everything you need within walking distance (ex. Norton Commons)

≈ less automobiles



[www.expressnews.com/real-estate/article/Partnership-buys-land-for-mixed-use-project-in](http://www.expressnews.com/real-estate/article/Partnership-buys-land-for-mixed-use-project-in)

❖ **Public transportation development**

➤ Developing more public transport means of transportation lower the negative fossil emissions caused by excessive automobile use.

❖ **Green Belts-** an area of open land around a city, on which building is restricted.

➤ green belts **restrict sprawl** and protects surrounding environmental conditions.

❖ **Redevelopment of Brownfields-** a former industrial or commercial site where future use is affected by real or perceived environmental contamination.

➤ Allows you to sustainably reuse a contaminated area

≈ Rejuvenated environment and job growth

Ex. Successful redevelopment in Austin, Texas from old chemical facility

❖ **Inclusionary Zoning-** municipal and county planning ordinances that require a given share of new construction to be affordable by people with low to moderate incomes.


**Affect:** Slow Growth Cities- cities where smart growth initiatives are put in place that cause them to develop slower than normal cities. <sup>1</sup>

<sup>1</sup> Further Information can be found on pages 254-255

## The Industrial Revolution

Fundamental changes in technology and systems of production that began in England in the late 18<sup>th</sup> century and changed manufacturing from small scale craft to factory-based production

Starting in England, diffused in 3 phases:

Phase 1 1760-1880	Belgium, the Netherlands, France, Germany, the US <a href="https://qph.fs.quoracdn.net/main-qimg-948406e1a0458aa3927122d6416e73eb">https://qph.fs.quoracdn.net/main-qimg-948406e1a0458aa3927122d6416e73eb</a> 
Phase 2 1880-1950	Russia, Japan, Canada, British dominions [IC]
Phase 3 1950-Present	Countries affected by phase 2, Israel, some Pacific Rim Countries

### Causes

**Greater access to capital (caused by English control over global trade [IC])**

- More investment (in factories)
- More money: more demand for goods
- More money to open factories



<http://www.blogforweb.com/wp-content/uploads/2013/06/more-money.jpg>

**Multiple technological innovations**

- Allows factories to develop
- Faster production of goods

**Rural to urban migration**

- Second agricultural revolution makes farming more efficient leaving many previous farmers without work



<https://cache.pakistantoday.com.pk/2013/11/rural-urban-migration.gif>

- Previous farmers need jobs; move to cities and provide cheap labor necessary for factories

### Effects (of the Industrial revolution)

**Boost to the second agricultural revolution**

- Innovations used in agriculture are produced more, and can therefore be bought for cheaper

**Increased urbanization**

**Global diffusion of the factory system**

- The factory system spread to newly industrializing countries with every phase

------(end of cause and effect)-----

**Natural Resources:** During phases 1 and 2 of the industrial revolution, factory locations were determined by the geography of natural resources. Factories were built close to their energy sources, mostly coal, or to the material they processed, mostly iron ore. Most present-day factories value access to the market, and not raw materials.

[https://upload.wikimedia.org/wikipedia/commons/b/b9/British\\_Empire\\_Mercator.svg](https://upload.wikimedia.org/wikipedia/commons/b/b9/British_Empire_Mercator.svg)



**Imperialism and**

**Colonialism:** England's empire of many colonies was a key factor, supplying the money needed for the industrial revolution to begin.

Because of their relation to England, these colonies

industrialized quicker than many countries free from colonial control.

[IC]=Links to imperialism and colonialism



# Economic Sectors

Industry activities are grouped into five total Economic sectors. These go into more detail of how a product or service is being made and presented.

## Primary sector :

- ❖ **Extraction and resource-based.**
- ❖ When the Economic activity is based around extracting natural resources/foods from the earth.
- ❖ Mainly found in **LDCs**

Examples:

- ❖ Mining for coal,
- ❖ Farming-raising cows that we will eventually eat.



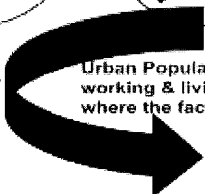
[http://dir.coolclips.com/Industry/Resources/Mining/Coal/coal\\_miner\\_vc026732.html](http://dir.coolclips.com/Industry/Resources/Mining/Coal/coal_miner_vc026732.html)

## Secondary Sector:

- ❖ **Manufacturing/ industrialization**
- ❖ When the industry Manufactures and process the raw material derived from *primary sector* into a good/service thats ready to be sold/used

Examples:

- ❖ Processing wheat into flour
- ❖ Turning metal into cars.



Urban Population ↑ more people working & living in/around the CBD where the factory is



<https://www.shutterstock.com/image-vector/industrial-factory-cartoon-vector-illustration-black-306597719>

\*\*\*As economies "advance" they typically shift from a focus on the primary sector to the secondary sector to the tertiary sector to the quaternary and quinary sectors. That doesn't mean there won't be jobs in the other sectors, just a shift in emphasis.

## Tertiary Sector:

- ❖ **"Service sector"**
- ❖ The services provided by the industry to its consumers- sells the finished product.
- ❖ Examples: Banking, Transportation to take you places, Education, Delivery services.

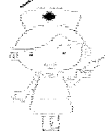


<https://clipartlibrary.com/categories/view/c438e3d72c45b9c1d72c0b0d7511521a5085e98a/cartoon-airplane-clipart.html>

- In more detail, They can be classified into two branches:

## Quinary Sector

-Requires high-level of knowledge around a certain skill(e.g.Doctor-Health)



[http://www.momjunction.com/articles/nurse-coloring-pages\\_0098819/](http://www.momjunction.com/articles/nurse-coloring-pages_0098819/)

## Quaternary Sector

- Based on research and development (knowledge) of industry  
Ex: Development of new tech



<https://www.shutterstock.com/work-computer-furniture-people-check-technology-working-645722>

## THE LOCATION OF MANUFACTURING

pg 282 - 283

### Weber's Least Cost Theory

↳ placement of the production point in a triangle of raw materials and a market that tries to minimize the cost of transportation

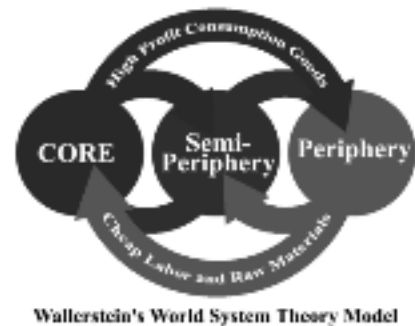
Weight/ Bulk Gaining Industries	Weight/ Bulk Losing Industries
Should be closer to market because it is heavier after production	Should be closer to the raw materials because it is heavier before processing
ex: automobiles	ex: copper



### World Systems Theory

↳ a world economic system where large, developed countries exploit less developed countries (Immanuel Wallerstein)

- *Core*: capitalist countries that exploit others for labor and raw materials
  - ex: United States + Japan
- *Peripheral*: countries that are dependent on core countries due to an underdeveloped economy
  - ex: Sub-Saharan Africa
- *Semi-peripheral*: countries that share both characteristics (more developed than peripheral, less developed than core)
  - ex: Mexico, India, Brazil



Wallerstein's World System Theory Model

### Break of Bulk Points

↳ a place where cargo is shifted from one form of transport to another

ex: at a ship port cargo is transferred from boat to train

\* most become hubs of industrialization

Sources:

<https://www.monash.edu/business/marketing/marketing-dictionary/w/weight-gaining-industries>

<https://www.kaptest.com/study/ap-human-geography/ap-human-geography-industrialization-and-economic-development-notes/>

<https://www.spps.org/cms/lib/MN01910242/Centricity/domain/719/powerpoints/industry.pptx>

[https://socialsci.libretexts.org/Bookshelves/Sociology/Book%3A\\_Sociology\\_\(Boundless\)/8%3A\\_Global\\_Stratification\\_and\\_Inequality/8.6%3A\\_Sociological\\_Theories\\_and\\_Global\\_Inequality/8.61%3A\\_World-Systems\\_Theory](https://socialsci.libretexts.org/Bookshelves/Sociology/Book%3A_Sociology_(Boundless)/8%3A_Global_Stratification_and_Inequality/8.6%3A_Sociological_Theories_and_Global_Inequality/8.61%3A_World-Systems_Theory)

<https://medium.com/@kendallgrace15/periphery-role-in-the-world-systems-theory-fa5d291cae55>

# Measures of Development

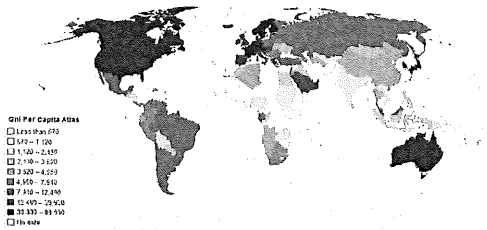
## Indicators of a positive relationship

- ❑ **Gross National Income (GNI):** includes all the income residents and businesses make whether it's in the home country or not.

**Highest in:** Norway, Qatar, Luxembourg

**Lowest in:** Burundi, Central African Republic

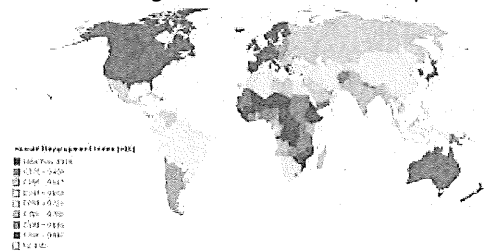
[http://cdn3.chartsbin.com/chartimages/l\\_11084\\_1f342d4837617e152d1323c48ed4bd90](http://cdn3.chartsbin.com/chartimages/l_11084_1f342d4837617e152d1323c48ed4bd90)



- ❑ **Human Development Index (HDI):** a statistical tool used to rank countries based on GNI, life expectancy, literacy rate, and education.

**Best in:** Norway, Australia, Sweden

**Worst in:** Niger, Central African Republic

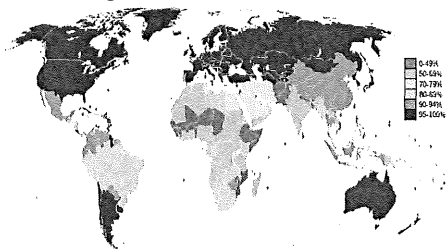


<https://goo.gl/images/273ts8>

- ❑ **Literacy Rate:** percent of population over 15 that are literate (can read and write) within a country.

**Best in:** Andorra, Finland, Liechtenstein

**Worst in:** Niger, South Sudan, Guinea



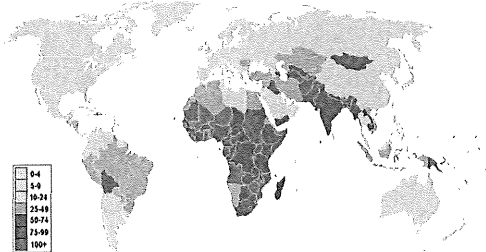
<https://goo.gl/images/XoKYn9>

## Indicators of a negative relationship

- ❑ **Infant Mortality Rate (IMR):** number of deaths under the age of 1 year old in a given area per 1,000 live births.

**Lowest in:** Monaco, Iceland, Japan

**Highest in:** Afghanistan, Somalia

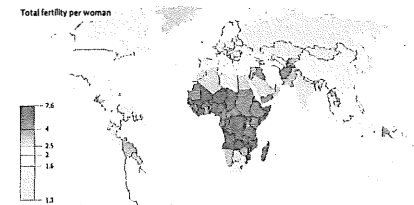


<https://goo.gl/images/sozxKk>

- ❑ **Total Fertility Rate (TFR):** the average number of children a woman will have in her childbearing age (12-51).

**Lowest in:** Singapore, Taiwan, Puerto Rico

**Highest in:** Niger, Angola, Mali



<https://goo.gl/images/ueaQHe>

- ❑ **Income Distribution:** how income is divided between different groups (rich and poor); relates to income equality.

**Lowest in:** Norway, Slovenia, Slovakia, Sweden

**Highest in:** South Africa, Haiti, Botswana

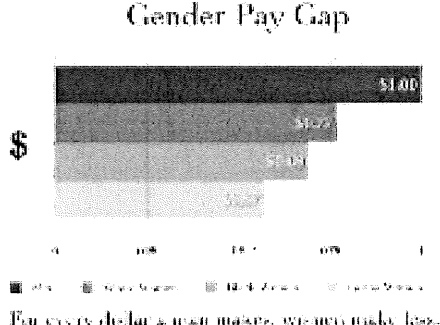
### Direct vs Inverse

- Positive relationships are direct because the **HIGHER** the rate is for a country the better developed it is.
- Negative relationships are inverse because the **LOWER** the rate is the more developed a country is.

# Women and Economic Development

## Wage Inequality

- Women lose more than \$10,000 a year because of the wage gap
- In the US (an MDC) on average a woman makes 77 cents to a man's dollar



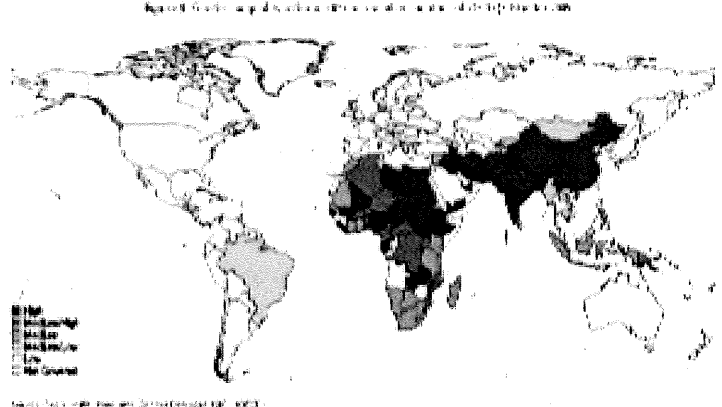
## Gender Inequality Index (GII)

- 0 = perfect equality
- 1 = absolute **inequality**
- In 2015, Switzerland was ranked #1 for their GII of .040

Countries with more equality are lightest in color

The darkest countries have the lowest equality

Some of the countries; like Angola, Africa; are not covered, so appear white but don't necessarily have high equality levels



## Percentage of Women in the Workforce

- Women make up roughly half of the workforce
- 3/4 of the **service industry** is women in more than 50 countries
- About 70% of agricultural workers are women, and in West Africa, 80% of the whole labor force is women
- Women are the primary employees in EPZs (EPZs are in LDCs, made by government to promote industrial development)
- Female labor force participation is highest in the richest and poorest countries and lowest in the countries with an average income

## Connection to the TFR (Total Fertility Rate)

Women become more involved because of more jobs → earn more money → better life → more education → decrease in the TFR



# Theories of Development

## Rostow's Stages of Economic Growth

- Walt W. Rostow in 1960
- Economic version of the Demographic Transition Model
- 5 stages of development based on cause and effect of economic growth

### Criticisms

- Assumes all countries start from the same point
- Eurocentric, assumes all countries will develop into modern and advanced western like society

## Rostow's 5 Stages of growth



Demographic research requirement using Rostow's model prior to Product Launch  
©: Minnie Umachandran

Umachandran, Krishnan. (2014). Re: Are Rostow's 5 Stages of growth still ideal for today's economies? Must an economy follow these 5 stages to achieve sustainable economic growth?. Retrieved from: [https://www.researchgate.net/post/Are\\_Rostows\\_5\\_Stages\\_of\\_growth\\_still\\_ideal\\_for\\_todays\\_economies\\_Must\\_an\\_economy\\_follow\\_these\\_5\\_stages\\_to\\_achieve\\_sustainable\\_economic\\_growth/53f1acd2cf57d737378b45f8/citation/download](https://www.researchgate.net/post/Are_Rostows_5_Stages_of_growth_still_ideal_for_todays_economies_Must_an_economy_follow_these_5_stages_to_achieve_sustainable_economic_growth/53f1acd2cf57d737378b45f8/citation/download).

## Commodity Dependency

- When a country is dependent on the exportation and income from one good
- It is an issue because if people don't want to buy that good they have no incoming money to sustain the country

Ex: cities in the Rust Belt were

dependent on steel and when people didn't want that anymore they didn't have anything else generating income

Ex: During the Civil War, the South

was dependent on cotton for income. They lost in part because European countries didn't need to buy cotton from them and didn't want to interfere in the war. The South had counted on European cotton buying support and when they didn't get it they didn't have enough money to beat the North which had manufacturing

## Wallerstein's World System Theory

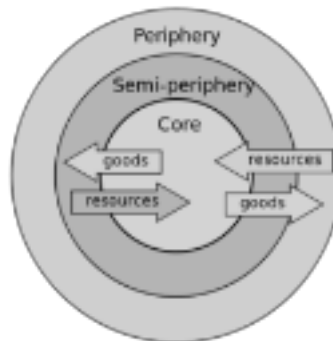
- more dominant countries benefit from exploitation of dependent less developed countries

### Divided into 3 groups:

- **Core**- high level of development, only small percentage of primary sector workers ex. US, Canada

- **Semi-periphery**- traits that relate to core & periphery, economic diversity ex. Mexico, India

- **Periphery**- LDC and poorer countries, most workers in primary sector, most were previously colonized ex. Most of sub-Saharan Africa



[https://course-notes.org/flashcards/ap\\_human\\_geography\\_models\\_flashcards\\_10](https://course-notes.org/flashcards/ap_human_geography_models_flashcards_10)

## Dependency Theory (1960-70s)

- Development is better understood as a relational process not series of stages
- **Dominant**- most developed states which command economic resources and power in trade
- **Dependent**- developing countries which lack economic resources and power
- Contrary to Rostow's model: as Europe developed and grew richer, developments in Africa and Latin America were hampered

# Trade and the World Economy

<u>Comparative Advantage</u>	<u>Complementarity</u>
<ul style="list-style-type: none"> <li>• When a country produces a good or service for a lower opportunity cost than another country</li> <li>• Measures a trade off</li> <li>• Produces goods using fewer resources</li> </ul>	<ul style="list-style-type: none"> <li>• Complementarity: When one country can supply the demand for resources and goods in another country.</li> </ul> <p>Ex. If Kentucky produces tobacco that Georgia wants, and Georgia has peaches that Kentucky wants they have complementarity</p>

## Neoliberal Policies



Eliminate price controls  
 Deregulate capital markets  
 Lower trade barriers  
 Reduces state influence in the economy



**Spatial Connections**

- Connects across countries





**New Organizations**

- Encourage the rise of private businesses and institutions

**Trade Relationships**

- Tariffs are cut, sometimes dependency is established

Cartoon: [https://www.google.com/search?q=neoliberalism+black+and+white&rlz=1C5CHFA\\_enUS894&source=lnms&tbm=isch&sa=X&ved=2ahUKEwjwZextf7raAhWqOAKHWeRCAsQ\\_AUoAXoECAwQAw&biw=1200&bih=693#imgrr=NjM2qNRbsWRM](https://www.google.com/search?q=neoliberalism+black+and+white&rlz=1C5CHFA_enUS894&source=lnms&tbm=isch&sa=X&ved=2ahUKEwjwZextf7raAhWqOAKHWeRCAsQ_AUoAXoECAwQAw&biw=1200&bih=693#imgrr=NjM2qNRbsWRM)

<p><b>European Union (EU)</b></p> <ul style="list-style-type: none"> <li>• Consists of 27 countries</li> <li>• Founded in 1993</li> <li>• Creates a free trade zone throughout Western Europe by cutting tariffs and promoting free movement of people and goods</li> </ul>  <p><a href="https://en.wikipedia.org/wiki/Flag_of_Europe">https://en.wikipedia.org/wiki/Flag_of_Europe</a></p>	<p><b>World Trade Organization (WTO)</b></p> <ul style="list-style-type: none"> <li>• Consists of 164 countries</li> <li>• Founded in 1995</li> <li>• Creates international trade rules by regulating tariffs and attempting to make imported goods just as desirable as domestic ones.</li> </ul>  <p><a href="https://www.crwflags.com/fotw/flags/int-wto.html">https://www.crwflags.com/fotw/flags/int-wto.html</a></p>
<p><b>Organization of the Petroleum Exporting Countries (OPEC)</b></p> <ul style="list-style-type: none"> <li>• Consists of 15 countries</li> <li>• Founded in 1960</li> <li>• Tries to coordinate oil production among its members. Triggered a spike of oil prices by restricting the movement of oil to ports in Europe and North America</li> </ul>  <p><a href="https://en.wikipedia.org/wiki/OPEC">https://en.wikipedia.org/wiki/OPEC</a></p>	<p><b>Mercosur</b></p> <ul style="list-style-type: none"> <li>• Consists of 5 member countries and 7 associated countries</li> <li>• Founded in 1994</li> <li>• Promotes free trade and fluid movement of goods people and currency throughout Latin America</li> </ul>  <p><a href="https://en.wikipedia.org/wiki/Flag_of_Mercosur">https://en.wikipedia.org/wiki/Flag_of_Mercosur</a></p>

# Interdependent Global Economies

**Mutual Global Dependence:** One country depends on another for something and that country also depends on another for something else  
(all countries depend on one another)

What causes interdependent global economies?

- Commodities
- Industrialization
- Importing and exporting goods and services
- Neoliberalism

**Commodities:** a raw material that can be bought and sold

**Commodity dependency:** when a country's economy is heavily based on a single primary sector activity



<https://images.app.goo.gl/xUNcvkRRSkCDxveK7>

**Neoliberalism:**  
An ideology that favors the removal of barriers to make the movement of goods, services and capital more efficient.

- Free market
- No tariffs

**Tariffs:**                    \$\$  
A tax charged on imported or exported goods.

- Raises revenue for the government

## Strategies of Development:

**Structural Adjustment Program (SAP):**  
Country specific policy created to promote economic growth

- Based on neoliberal principles
- Influenced IMF and World Bank

**International Lending Agencies:**  
Give low income loans and grants to developing countries

- World Bank
- IMF

[www.imf.org](http://www.imf.org)



<https://images.app.goo.gl/qVfCKrj3fbE3chDS7>



**Microlending:**  
Providing small amounts of money to starting companies

- Used in developing countries
- Decreases poverty

**International Monetary Fund (IMF):**  
Provides last-resort loans to struggling nations

- Most countries are members
- Created in 1945
- Criticized for contributing to LDC commodity dependency

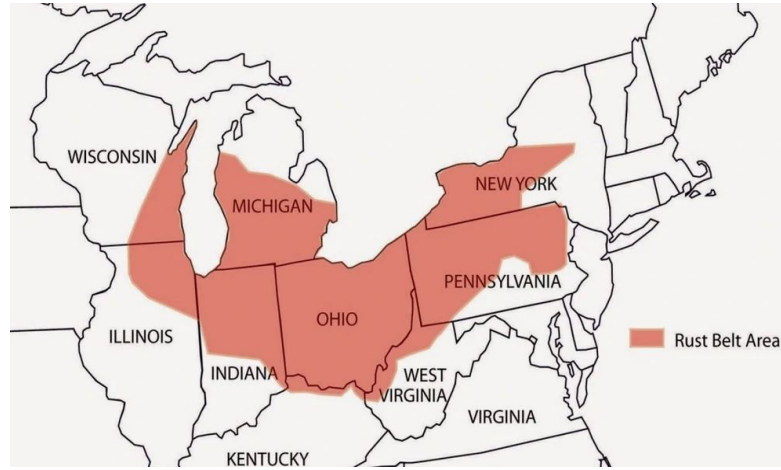
<https://www.kabbage.com/resource-center/finance/microlending-the-risks-and-rewards>

<https://rockfortmarkets.com/en/education/commodities/>

<https://marketbusinessnews.com/financial-glossary/global-interdependence-definition-meaning/>

## Changes As a Result of Deindustrialization

- **Outsourcing** - A company hires another company for the production of things
  - the main causes are cheaper labor and less regulations in countries
  - Example - Apple hiring Chinese companies to assemble i-phones
- As a result of outsourcing the **Rust Belt** develops- - This region was a steel and iron hub, but died down from deindustrialization  
[https://liberapedia.wikia.org/wiki/Rust\\_Belt](https://liberapedia.wikia.org/wiki/Rust_Belt)

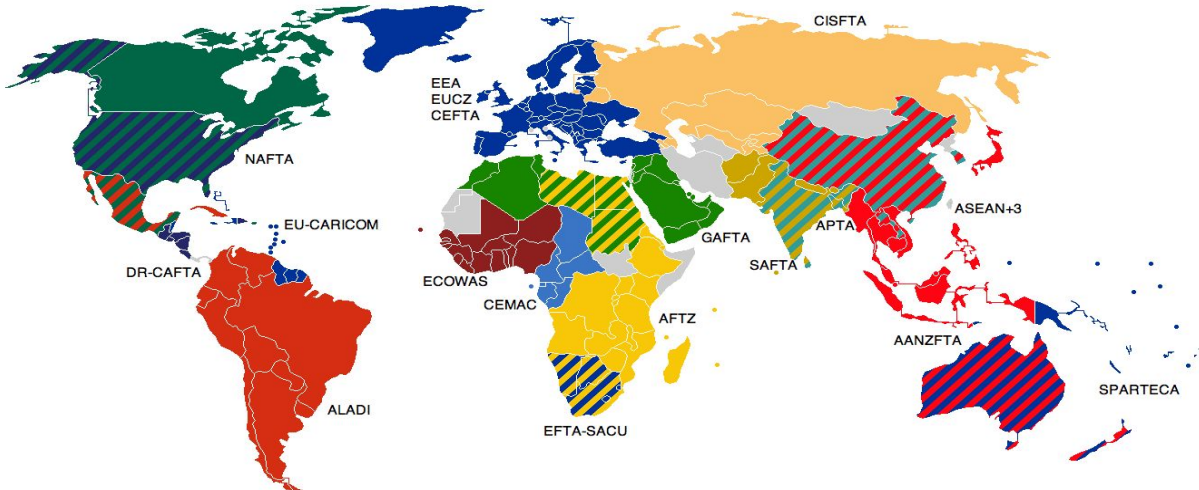


### In general, the CORE experiences-

- **Decline of secondary sector jobs** in the core (**service sector (tertiary, quaternary, quinary)** jobs grow, but it takes time to transition the economy)

Countries **outside of the core** create new **manufacturing zones** to help the growth of and attract more industries to those areas.

- **Special Economic Zones (SEZ)** - an area that has less environmental regulations and tax incentives (Ex. 2018 India has new SEZ with little energy rules)
- **Export Processing Zones (EPZ)** - a company can import plant, machinery, and store things without charge (Ex. **Maquiladoras** along the US-Mexico border)
- **Free Trade Zone (FTZ)** - a zone where tariffs and trade barriers are not present when trading between two countries (See map below of some of the free trade zones)



Go to pages 307-313 for extra help

<https://www.economicshelp.org/blog>

# Environmental Effects of Industrialization and Development

## Natural Resource Depletion

*Resource depletion* - consumption of a resource faster than it can be replenished.

- Water
- Fossil fuels
- Land use and soil

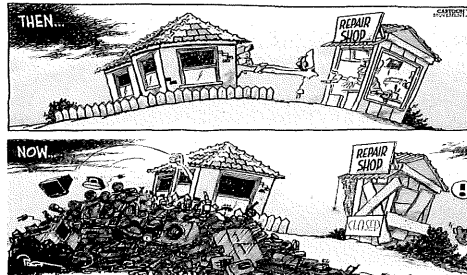
*Industrialization contributes to natural resource depletion through:*

- Heavy use and reliance on fossil fuels to power factories
- Using greenspace to build manufacturing plants, factories, and warehouses

## Mass Consumption

*Mass consumption* - the use or purchase of goods/services by a large number of people.

- Leads to higher demand, which then leads to increased production
  - Increased production can cause pollution, climate change, and natural source depletion.
- Leads to waste
  - U.S: Produces 40% of the world's waste.



## Pollution

*Pollution* - the introduction of harmful materials into the environment.

- Water pollution
- Air pollution
- Soil contamination

*Pollution from industrialization comes from:*

- Burning of fossil fuels
- Toxic runoff from factories
  - Vietnam: Formosa Plastics illegally disposed toxic waste into the ocean, killing huge amounts of marine life.
- Poor disposal of factory waste



## Climate Change

*Climate change* - significant long-term change in the expected weather patterns of a region.

- Increased temperatures
- Irregular weather patterns
- Rising sea levels

*Industrialization contributes to climate change by:*

- Increasing CO<sub>2</sub> emissions released by factories (directly related to increased global temperatures)
  - Globally, the burning of fossil fuels such as coal and oil pumped out 38.2 billion tons of CO<sub>2</sub> emissions (2012).

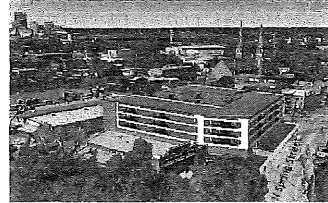
<https://www.theartof.com/articles/consumerism-mass-extinction-and-our-throw-away-society>

<https://www.edf.org/climate/how-cap-and-trade-works>

## Sustainable Development

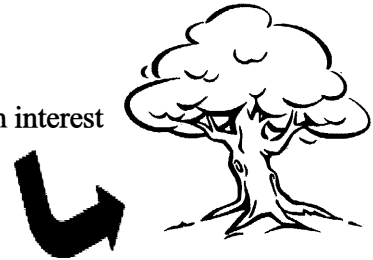
**Sustainable Development:** Achieving the needs and goals of the present without abusing/compromising the resources needed for the future generation

- ❖ ex. 104-unit apartment development planned for Butchertown, Louisville (2019)



<http://insiderlouisville.com/economy/real-estate/new-104-unit-apartment-development-planned-for-butchertown/>

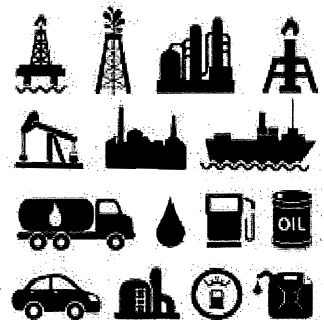
- Uses renewable sources,
- Costly, may cause unemployment, more requirements for companies, factories, etc.
- Microlending: granting very small loans to people in need
  - ❖ ex. KIVA gives loans and allows you to borrow
- Ecotourism: tourism using the environment and wildlife as an interest
  - ❖ ex. California- trails, Golden Gate Park, redwoods, ocean views, etc.
- Green spaces/ environment are safe
- Needs to end poverty in order to function



<http://clipart-library.com/black-and-white-images-of-trees.html>

**Conventional Development:** Achieving the needs and goals of the present while paying little attention to the impact of these gains on the future environment, resource use, & consumption

- Not as costly to function
- More harmful to environment
- Uses non renewable resources
  - ❖ ex. fossil fuels, oil, natural gas, and coal used for cars, electricity, etc.
- Can cause global warming, endangered species, etc.



<https://www.gograpic.com/vector-clip-art/oil-rig.html>

→ In order to save the future world, development experts have started to apply sustainability

**\*\*For more information, see page 263\*\***

# UN Millennium Development Goals and Sustainable Development Goals

## Millennium Development Goals

### (MDG)

#### Where were they made?

- Made at the UN conference at the Millennium Summit in New York

#### When were they made?

- September 2000

#### Why were they made?

- To help other countries develop
- To fight poverty
  - They coincided with Poverty-Reduction Theory

#### What were they?

1. Halve extreme poverty and hunger
2. Achieve universal primary education
3. Promote gender equality/empower women
4. Reduce child mortality
5. Reduce maternal mortality
6. Combat the spread of different deadly diseases
7. Ensure Environmental sustainability
8. Create a global partnership for development

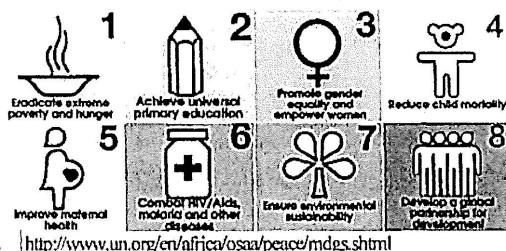
#### Summary:

- Set to be completed by 2015
  - Progress was made, but the goals were not fulfilled
- Ex: Albania's success in poverty reduction is linked to the MDGs

## Sustainable Development Goals

- In 2015, when the MDGs were not fulfilled, the UN met up again.
- They established new goals to be met by 2030
- These included eradicating poverty and hunger, improving education, health, equality, and partnerships, etc.

For more info, see pages 285-288 in the textbook



<http://www.un.org/en/africa/osaa/peace/mdgs.shtml>

<http://news.gtp.gr/2015/09/28/travel-tourism-welcome-new-un-sdgs/>

## SUSTAINABLE DEVELOPMENT GOALS

