

## GEOG 247 Cultural Geography

# Studying Populations I

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## Population Geography?

- ❖ **The study of the spatial and ecological aspects of a population (geodemography).**
- Focuses on the number, composition, and distribution of humans in relation to variations in the conditions of earth environment.

**This topic and all the textbook topics will be looked at through the lenses of the 5 themes: region, diffusion, ecology, interaction and landscape.**

## Population and Culture

✓ Textbook authors note that many cultural geographers feel that knowledge of the “spatial dimensions of demography provides the baseline of the discipline” and creates the human mosaic that is the focus of the course.

### Population Analysis

- Distribution
- Density
- Make up: Age and gender
- Health
- Fertility
- Mortality
- Mobility/Migration

➤ These aspects are looked at spatially and within a **cultural context**. We do a spatial analysis of population-related issues.

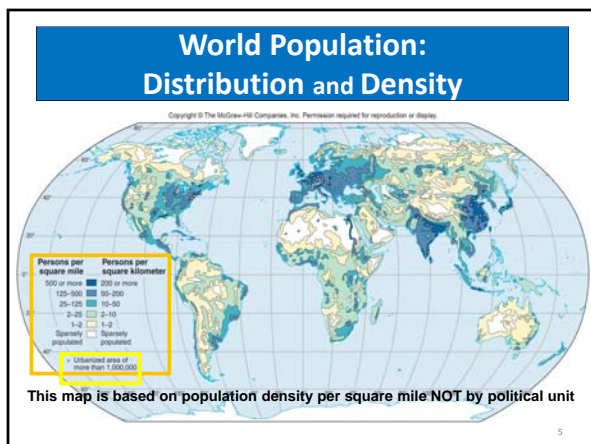
Regional variations of physical environmental characteristics and human adaptation to them, allow for unique cultural characteristics to come about and evolve over time.

## Demographic Regions: Population Distribution and Density

### Key terms:

- **Population density:** Measure of population per unit area (e.g., per square mile).
- **Demographic region:** Formal region based on the single trait of population density.

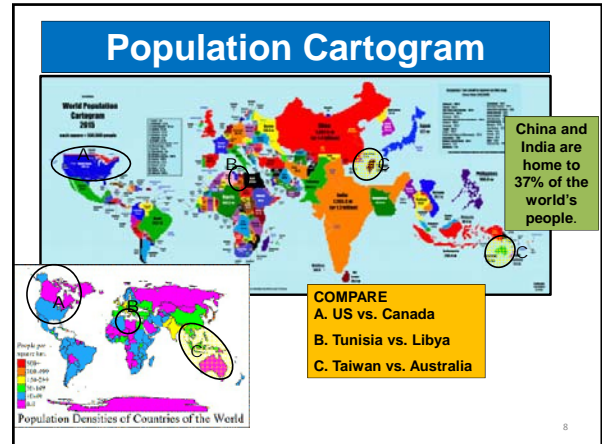
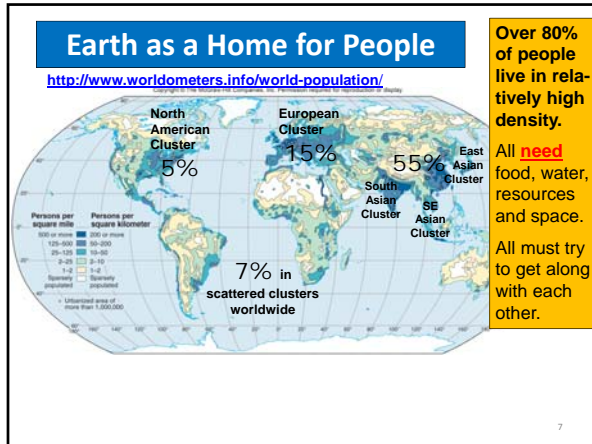
- **Carrying capacity:** Maximum number of people who can be supported in a given area.
- **Population cohort:** Group of people unified by a common characteristic such as age, ethnicity, national origin, belief systems.



## Earth as a Home for People

- **50% of the world's people live on only 5% of the land.**
- **90% of the world's people live on 10% of the land.**
- **95% of the world's people live on 40% of the land.**

➤ Conversely, **60% of the land is virtually empty and just has 5% of the world's people.**



### Factors that Encourage Settlement and Higher Population Densities

**Population Ecology:** A combination of natural factors creates conditions for the concentration of people. People adapt to local conditions, creating a cultural identity.

**Like what?**

1. Landforms (size, topography, altitude, situation)
2. Climate
3. Soil fertility
4. Natural vegetation and wildlife
5. Water supply
6. Mineral and energy resources
7. Absence of natural hazards
8. Absence of disease and pests

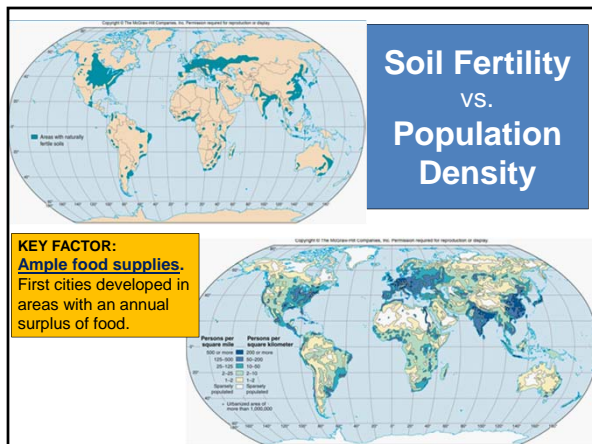
### Factors that Encourage Settlement and Higher Population Densities

1. Landforms
2. Climate
3. Soil fertility
4. Natural vegetation/wildlife
5. Water supply
6. Mineral/energy resources
7. Absence of natural hazards
8. Absence of disease/pests

Including:

- colonization
- urbanization
- industrialization
- social services
- perception of a better life
- political expediencies

- All 8 are modified by levels of technology and forms of economy.
- All 8 are influenced by historical circumstances and cultural parameters.



### Habitat Decisions and Landscape Development

❖ 7+ billion people need food, water, shelter, resources and living space PLUS a place for their waste.

- People are influenced by external factors.
- People have a perception of what the environment has to offer.
- People create mental images and mental maps.

**Based on these factors, people make choices; people make changes.**

### Habitat Decisions and Landscape Development

**People don't like extreme conditions.**

- In **tropical/subtropical latitudes**: settlement tends to be at higher elevations where there is less heat, humidity and insects.
- In the **middle and colder latitudes**: people tend to stay at lower elevations where it is warmer and/or flatter.
- **Most people are clustered near the sea** (coastal locations) for mobility, food and flat land, especially when interior areas are inhospitable or difficult to access.
- **Higher population densities may have an adverse affect on the environment**, as deforestation and soil depletion (**human impact**).

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### Demographic Regions: Patterns of Natality and Mortality

**Key Terms:**

- **Birth rate (BR)**: Annual births per 1,000 population
- **Death rates (DR)**: Annual deaths per 1,000 persons in the population.
- **Total fertility rate (TFR)**: Number of children the average woman will bear during her reproductive lifetime (age 15-49 yrs).
- **Zero population growth (ZPG)**: Replacement rate. Number of births = number of deaths; only two children per couple survive to adulthood.
- **Population explosion**: The rapid increase in population over a short period of time caused by a rapid decrease in the death rate.

### Population Interactions

**We need data to evaluate a population and assess their interactions.**

- ✓ Numbers of people.
- ✓ Concentration of people.

➤ **Other data to help assess a situation as ....>>**

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### Population Dynamics

**...the things we need to know about a population:**

1. **Where** are they found?
2. What are their **growth rates**?
3. What is their **density** or grouping pattern?
4. What **cultural parameters** do we need to be aware of, as economic well-being, agricultural practices, religious beliefs, diet, access to/use of technology, including medical.
5. What are the **urban/rural ratios**?
6. What **movements** are present (external and internal)?
7. How do the numbers relate to the **resource base** and will it put a strain on the area's **carrying capacity**?

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### TERMS

- ❖ **Carrying capacity**: the ability of the land to support life.
  - It is directly related to **resource base** (food-water-shelter) which composes a **habitat**. The **quality** of a habitat can be assessed.
  - The better the quality of a habitat, the more life it can support.
- **Good quality habitats will attract people** (it is a **pull factor**). People will then decide how to get the most out of their habitat. (Human imprint = Culture)
- **BUT**, the quality of good habitat may deteriorate over time.

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### TERMS

- ✓ Carrying capacity's **limits are reached** if too many people use what is available and the resource base is taxed to its limit.
- ✓ Once carrying capacity is reached, the **quality of habitat diminishes** and an area is said to be overpopulated.

The quality of location changes with time!

- ❖ **OVERPOPULATION: Too many people for the resource base.**
- **Overpopulation is NOT the same as a population explosion.**

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## Population Growth

**Can the earth support its fast-growing population?**

- Does it have the **capacity** to keep up with a population's demands on its resources?
- Do the **cultural attributes** of a population affect a local area's carrying capacity?
- How can we tell?

➤ **Need data.**

❖ **DEMOGRAPHY:** statistical study of a population.

*However, there is a problem with the data. Accuracy of national censuses and world organizations varies.*

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## J-Curve: Historic Population Growth

7 billion mark reached in late 2011

What caused world population to increase dramatically?

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## Population Growth

7 billion mark reached in late 2011

- **Better medical practices.**
- **Understanding causes of illness and the transmission of disease.**
- **Improved sanitation.**
- **Better agricultural methods** (more food available).
- **Improved food supplies** (transportation and storage).
- **Knowledge of nutrition.**

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## Population Growth

Oldest human fossils are carbon dated to +/-200,000 yrs

1 AD: 250 mil people on earth

1650: 500 mil = 1,650 yrs to double

1830: 1 billion = 180 yrs to double

1925: 2 billion = 95 yrs to add 1 billion

1960: 3 billion = 35 yrs to add 1 billion

1975: 4 billion = 15 yrs to add 1 billion

1986: 5 billion = 11 yrs to add 1 billion

2000: 6 billion = 14 yrs to add 1 billion

2011: 7 billion = 11 yrs to add 1 billion

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## Population Growth and Projections

1. World population growth has been fast since the mid-1900s.
2. Has been regionally uneven.
3. Estimates are based on current growth rates and they change over time.

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## World's Most Populous Countries 2011 and 2050

TABLE 3.1 The World's 10 Most Populous Countries, 2011 and 2050			
Most Populous Countries, 2011	Population in 2011 (in millions)	Most Populous Countries, 2050 (estimated)	Population in 2050 (estimated, in millions)
China	1,346	India	1,692
India	1,241	China	1,313
United States	312	Nigeria	433
Indonesia	238	United States	423
Brazil	197	Pakistan	314
Pakistan	177	Indonesia	309
Nigeria	162	Bangladesh	296
Bangladesh	151	Brazil	223
Russia	143	Ethiopia	174
Japan	128	Philippines	150

(Source: Population Reference Bureau, 2011 World Population Data Sheet)

<http://www.prb.org/Publications/Datasheets/2017/2017-world-population-data-sheet.aspx>  
 Link to 2017 world population data tables from Population Reference Bureau.