Slide 1

ESSAY 1 Option

❖ From **Chapter 1,** you will discuss the contribution to the field of geography or to our knowledge of the world of a **noted modern-era** geographer, earth/environmental scientist, cartographer, researcher or explorer **born after 1750.**

✓ Focus on the **person's contri-bution,** not the biography, and don't refer to the person by his/her first name as: *"Christopher discovered America in 1492."*

➢ **Maximum length is 2 pages.**
➢ **Include a bibliography of at least 2 sources** (not counting Wikipedia) **on a separate page and footnotes, if appropriate.**
❖ **All required essays are due by Friday, April 17, 2020 in hard copy format** (but may be handed in at any time prior to the due date).
• **A** *lateness penalty* **as stated in the syllabus will be assessed starting April 18th.**
• **Any two** topical essays from the 3 topics listed on the syllabus are to be submitted by the due date.
✓ **If you do all three, the third will count as an extra credit assignment!**

Slide 2

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Studying Geography

Prof. Anthony Grande
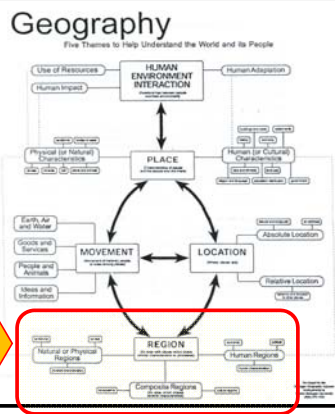**Hunter College Geography**

Slide 3

The Five Fundamental Themes of Geography

Source: Michigan Geographic Alliance

Any Questions?

This handout is on the course homepage.

Today we will take a closer look at "region".

Geography — Five Themes to Help Understand the World and its People

Slide 4

Focus on "Region"

❖ **A region is a part of the earth exhibiting similar traits or characteristics.**

✓ A region can be **natural** or **cultural** or a unique **combination of both**.
✓ Helps us to bring order to a diverse planet by dividing the earth up into unique areas.
✓ Makes it easier to study and compare these areas by setting them apart from others.

➢ Regions with <u>different characteristics</u> can overlap.

Slide 5

Region

All regions have five characteristics:

1. **Location:** we can **find it** on earth.
2. **Spatial Extent:** we can **measure it.**
3. **Boundaries:** we can **set its limits based on selected/ observed characteristics.** *(However, most boundaries are "fuzzy" and blend into each other.)*

Slide 6

Region

All regions have 5 characteristics:

4. Categorization:
   The three categories are:
   a) **formal** (exhibit a uniform appearance)
   b) **functional** (created by interaction or connections)
   c) **vernacular** (mental or perceptual)

4a: Formal Region
An area that exhibits a uniform appearance or characteristic.

ALSO, there are:
Economic regions
Landform regions
Ecoregions
Agricultural regions
Cultural regions
Language regions
Urbanized regions

Political regions
(counties) of NYS

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4b: Functional Region
Is created by interaction or connections.

This is a transit region

Also, you can have a
Banking region
Commuting region
Cell phone region
Theater District

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4c: Vernacular or Perceptual Region
An area created in one's mind (mental image) or popularized by usage.

The Midwest region is defined (perceived) differently by people.

What's a
Bible Belt
Good neighborhood
Rust Belt
Vacation area

How is "Long Island" defined?

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Region

All regions have 5 characteristics:

5. Hierarchical Arrangement
   a) major
   b) minor

Regions
within Regions
within Regions
within Regions
within Regions
within Regions
within Regions.

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Hierarchy of Regions

NOTE: *There are a number overlapping regions portrayed on this map.*

Regions within regions within regions within regions within regions.

The State of Delaware, the Delaware shore and Rehoboth Bay ecological area are **smaller** regions within larger ones.

The Mid-Atlantic, East Coast, and North America are **very large regions** that have a variety of smaller regions within them.

Three large overlapping regions:

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Subfields of Geography

Regional Studies incorporates elements of **physical** and **human geography** (which create unique natural and cultural landscapes).

It uses **geographic techniques** to study them.

This diagram is in the Handout Section of the course homepage.

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Geographic Methodologies

Geographers study the earth in a number of ways.
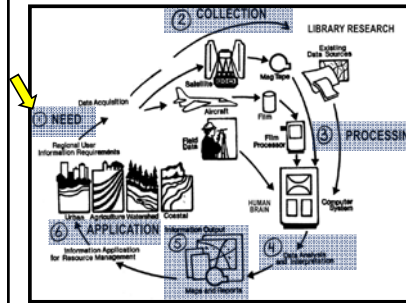❖ **Opposing views or dualisms:**
  - **Physical** (natural) **vs. Human** (cultural)
  - **Topical** (themes) **vs. Regional** (areas)
  - **Descriptive** (What's there? Cataloguing, knowledge accumulation) **vs. Analytical** (Why is it there? Hypothesis testing, systematic investigations, spatial analysis)
❖ **Time reference:**
  - **Past**
  - **Present**
  - **Future**

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GEOGRAPHIC RESEARCH

1. Assess the need.
2. Collect information.
3. Process the data.
4. Analyze/interpret the data.
5. Create an output.
6. Apply to a real world situation.
7. **Back to 1:** Re-assess the need (for as many times as needed)

This diagram is in the Handout Section of the course homepage.

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Geographic Methodologies

Geography of the Present	Geography of the Past
We study **current** conditions, interrelationships and happenings.	**Historical geography** looks at and analyzes the conditions that have led to or influenced the **actions of people over time**.
It focuses on today. It goes back in time to set the scene. It evaluates the present for future interactions.	The emphasis is on *developmental processes.* It studies **change**.

Geography of the Future
Uses the knowledge gained from the past and present to **make assumptions** about the future.
Regional and urban planning are examples of this.

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Geographic Methodologies

All three methodologies (past, present and future)
  ✓ **Are studied from geographic dualisms point of view.**
  ✓ **Use geographic research methods to gather and analyze data.**
  ✓ **Look for and analyze patterns of spatial distribution, always asking the question, WHY?**
  ✓ **Use cartographic methods** (mapping) **and geographic information software** and **technology** (gathering/analysis/mapping) **to portray information spatially.**

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SPATIAL DISTRIBUTION

Spatial distribution is the essence of geography.

We need to distinguish between the following:
  ❖ DENSITY
  ❖ CONCENTRATION
  ❖ PATTERN
  ❖ SPATIAL INTERACTION (issues of distance)
 ❖ DIFFUSION (issues of spread)

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Spatial Distribution

1. **DENSITY**: the number of times something exists within a given unit (space)
   (as people per sq. mi. or seats per 400 sq. ft. classroom)

2. **CONCENTRATION:** grouping of density
   (clustered or dispersed; proximity to each other)

3. **PATTERN**: the arrangement of density
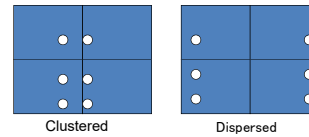   *(as linear, rectangular, circular, centralized, random)*

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1. Density: the number of times something exists within a unit

9 Dots (Box 1)	12 Dots (Box 2)	20 Dots (Box 3)
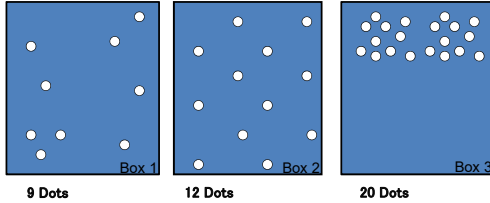
Which box has the greatest density?

2. Concentration: the grouping

Clustered   Dispersed
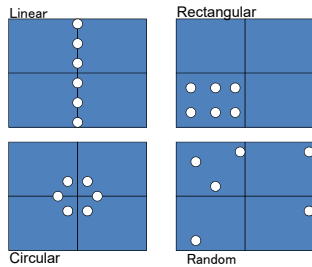
Grouping refers to the proximity to each other.

Each grid has the same density but in different concentrations.

3. Pattern: the arrangement
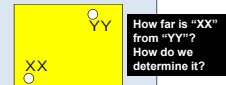
Linear   Rectangular

Circular   Random

Each grid has the same density.

However, they have different arrangements (patterns) and different concentrations.

4. Spatial Interaction: the movement and contact between parts

a) Distance – How far?
- ✓ Linear distance
- ✓ Time distance
- ✓ Psychological distance

YY

XX

How far is "XX" from "YY"? How do we determine it?
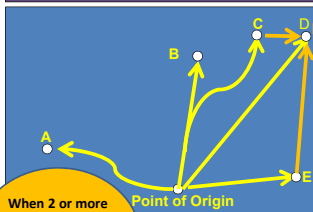
b) Connectivity: linkage; connection of points

c) Accessibility: ease of movement along links

d) Distance Decay: frequency of contact decreases with distance

Patient visits per 1,000 people
- Urgent care visits
- Specialty visits
- Distance decay curves
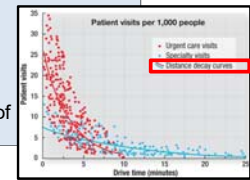
Greatest ← Interaction → Least

5. Diffusion: Spread from point of origin

C   D F
B
A
E
Point of Origin

When 2 or more routes can reach a location, a "network" is created.

We ask:
- <u>Why</u> was there move-ment away from point of origin?
- <u>What</u> route was taken? *and*
- How did that route <u>facilitate</u> movement?
- Are there <u>alternate</u> routes to get to the same location?

4 TYPES of DIFFUSION
- Expansion diffusion
- Relocation diffusion
- Contagious diffusion
- Hierarchical diffusion

Types of Diffusion

a) EXPANSION Movement away from point of high-est concentration; there's an increase in both area and numbers.

(a) Expansion diffusion
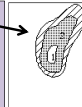
b) RELOCATION Migration; actual movement away to another location.

(b) Relocation diffusion
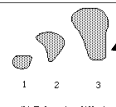
c) CONTAGIOUS Contact and ex-change between adjoining areas; person-to-person contact, blending.

(c) Contagious diffusion
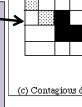
d) HIERARCHICAL Movement between levels – "up the ladder"; skipping areas in between (as mov-ing from the small town to big city with-out stopping at the smaller cities).

Origin

(d) Hierarchical diffusion

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Diffusion: Spread of Cholera in the U.S. 1832 and 1849

Disease spreads from ports of entry along lines of transportation.

Examples of Diffusion

https://www.washingtonpost.com/world/2020/01/22/mapping-spread-new-coronavirus/?arc404=true

Spread of "coronavirus"

Spread of Hinduism

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Density, Concentration, Pattern: Reported Cases of Disease

SPOTTED FEVER RICKETTSIOSIS 2000-2013

LYME Disease in 2005

West Nile virus (WNV) activity reported to ArboNET, by state, United States, 2012 (as of September 4, 2012)

Lyme Disease — 2018

Source: Centers for Disease Control

1 dot placed randomly within county of residence for each confirmed case

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Density, Concentration, Pattern: Homicides in NYC

Three Years of Murder in New York City

https://maps.nyc.gov/crime/

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Spatial Interaction: Transportation systems facilitate movement and allow contact

US Interstate Highway System

Portion of the New York City Transit System showing subway lines connecting Lower Manhattan with Downtown Brooklyn.

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N E X T

Geographers' Tools: Making Maps

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