

Thinking Geographically

AP Human Geography ■ Unit 1

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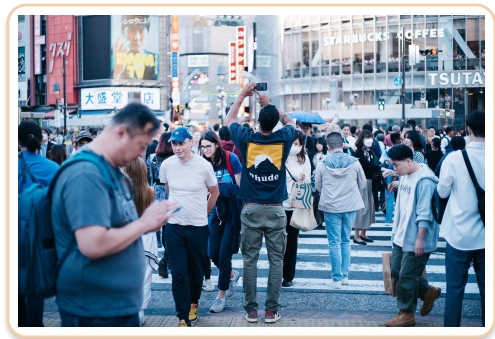
What we will cover

- 1 Maps & projections
- 2 Geographic data
- 3 The power of data
- 4 Spatial concepts
- 5 Human–environment
- 6 Scales of analysis
- 7 Regions



Maps and projections

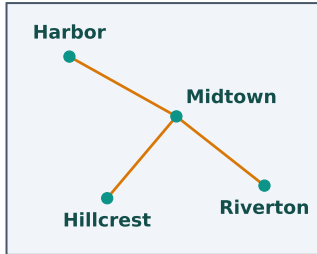
- A **reference map** shows locations; a **thematic map** shows one variable's pattern.
- Earth is a sphere and a map is flat, so every **projection** **distorts** one of shape, area, distance or direction – the choice is which.



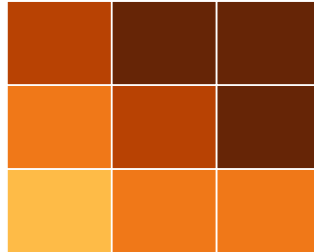
Population density is a classic thematic pattern

Introduction to Maps

Reference map
(shows fixed locations)



Thematic map
(shows a variable: density)



AP HuG · U1 · reference map vs thematic (choropleth) map

low high

Geography asks **where** things are and **why** they are there, and the map is its basic tool – a flattened picture of part of Earth's surface. Reference maps show location; thematic maps show how one variable varies over space.

Geographic data

- **Geographic data** is any information tied to a **location** . **Quantitative** data are numbers; **qualitative** data are descriptions.
- The three **geospatial technologies** to know: **GIS** *layers* many kinds of spatial data so patterns can be compared; **GPS** *pinpoints* an exact location; **remote sensing** *gathers* data from satellites or aircraft without touching the ground.
- Written sources count too: field observations, media reports, travel writing, policy documents, interviews and photographs.

The power of geographic data

- Individuals use it to navigate and find services.
- Businesses use it to site stores and target markets.
- Governments use it to plan, respond to emergencies, and set policy – raising **privacy** concerns.

Data drives decisions – and data is never neutral

business

chooses store locations from customer and traffic data

government

plans schools, roads and clinics from the **census**

aid agencies

target relief using population and damage maps

but

who collects the data, **which categories** they use, and **how a map is drawn** all shape the message

so

a map can inform *or* mislead – ask whose question it was built to answer

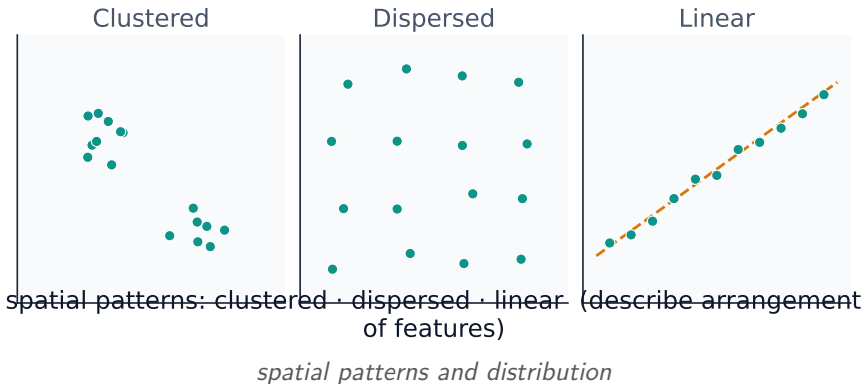
“Data is objective” is the wrong answer. Every dataset carries the choices of the people who made it, and naming those choices is the analysis.



Spatial concepts

- **Absolute location** = coordinates; **relative location** = position to others.
- **Distance decay** : interaction falls with distance.
- **Time-space compression** : technology makes far places feel close.

Spatial concepts, in detail



sep=0.5em **Absolute location** = coordinates; **relative location** = position to others.

Distance, and the pattern things make

absolute distance

measured in kilometres – fixed

relative distance

measured in **time**, **cost** or **effort** – and it changes

space–time compression

the shrinking of the *felt* distance between places as transport and communication improve

spatial pattern

clustered (bunched), **dispersed** (spread apart), or **linear** (along a road, river or coast)

Beijing to New York is the same kilometres it was in 1900, and a fraction of the days. That gap between absolute and relative distance *is* space–time compression.

Worked example – density is not distribution

Egypt: 109 million people in 1,010,000 km². Give the density – and explain why it tells you almost nothing about where Egyptians live.

$$\text{density} = \frac{109,000,000}{1,010,000} \approx 108 \text{ people/km}^2$$

But over 95% live on the Nile and its delta – a few percent of the land. The **average** spreads them evenly across desert they never occupy.

Density is one number (people per area). **Distribution** is the **pattern** – clustered, dispersed, linear. A question asking for distribution earns **nothing** for a density figure.

Human–environment interaction

- **Environmental determinism** (rejected): environment decides development.
- **Possibilism** (accepted): environment sets limits; people choose.
- **Sustainability** : present needs without harming the future.



People choose within environmental limits

Three positions on environment and culture

environmental determinism

the physical environment **determines** how a culture develops – **now rejected**, and used historically to justify colonial rule

possibilism

the environment sets *limits* and offers opportunities; people choose within them – the accepted view

cultural landscape

farms, cities and roads built on the land – the **visible result** of that choosing

sustainability

asks how people can use the land without exhausting what the next generation needs

Naming determinism as **rejected** is worth a mark on its own; the exam sets it as a distractor precisely because it sounds plausible.

Scales of analysis

- Data is read at **global** , **regional** , **national** , or **local** scale.
- The scale chosen changes the pattern you see.
- **Aggregation** into large units hides local variation.

Scales of analysis, in detail



AP HuG · U1 · scales of analysis nest inside one another

how scale changes the pattern

sep=0.5em Data is read at **global** , **regional** , **national** , or **local** scale.

Regional analysis

- **Formal region** : a shared measurable trait (a climate zone).
- **Functional region** : organised around a node (a commuter zone).
- **Perceptual region** : based on feelings, fuzzy borders ('the South').



formal: one shared trait



functional: around a node



perceptual: fuzzy borders

three ways to define a region

The three kinds of region

formal (uniform) region

shares a measurable trait throughout – a wheat belt, a country, a French-speaking area

functional (nodal) region

organised around a **node**, weakening outward – a newspaper's circulation, a metro network, a pizza delivery zone

perceptual (vernacular) region

exists in people's minds, with no agreed border – “the Midwest”, “the South”

the catch

regions are **made** by geographers, not found in nature – so their borders can be argued about

That arguability is not a weakness. It is exactly why regions are useful: drawing one forces you to say which trait you think matters.

Key points

Projections always distort;
pick one to fit the purpose

Scale of analysis changes
what a pattern reveals

Possibilism: environment
offers options, people choose

Regions are **formal, functional, or perceptual**

Worked example – the command word is the question

“The map focuses on a regional scale. Explain a possible limitation of drawing country-scale conclusions from a regional-scale map.” (real AP question)

“The map shows only one region, so its pattern may not represent the whole country – other regions could look very different, so a conclusion drawn at the regional scale would be inaccurate at the country scale.”

Explain asks for **reasoning**: state the limitation **and** say why changing the scale changes the pattern. “The scales are different” earns **nothing**.

Exam tips

- Always name a **map projection's** trade-off: what it preserves versus distorts (Mercator keeps direction but exaggerates area).
- State whether data is **quantitative** or **qualitative**, and match a source (**GIS**, **GPS**, **remote sensing**, census) to its use.
- Distinguish **absolute** from **relative location**, and use **distance decay** and **time-space compression** in any flow answer.
- Mind the **scale of analysis**: a national average hides local variation – say so explicitly.
- Classify every region as **formal**, **functional**, or **perceptual**, and justify it by the defining trait.



Unit 1 – key takeaways

1

Projection

name the trade-off: preserve vs distort

2

Data

quantitative vs qualitative; match GIS/GPS/census to use

3

Location

absolute vs relative; distance decay; time-space compression

4

Region

formal, functional, or perceptual – justify by the trait

Check yourself

- 1 Does a map projection distort shape, area, or both?
- 2 Name the three scales of analysis.
- 3 What does a regional-scale map fail to tell you about a country?
- 4 Is population density the same as distribution?

Answers 1. both – every flat map distorts something 2. local, regional (national), global 3. whether other regions differ 4. no – density is people per area