Thinking Geographically

AP Human Geography ▪ Unit 1

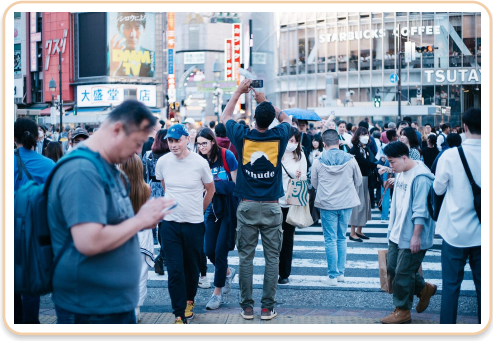
AP Human Geography

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

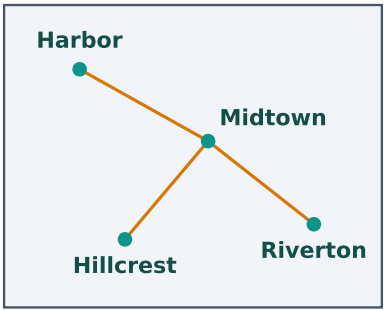
- A **reference map** 参考地图 shows locations; a **thematic map** 专题地图 shows one variable's pattern.
- Every flat **projection** 投影 distorts shape, area, distance, or direction.



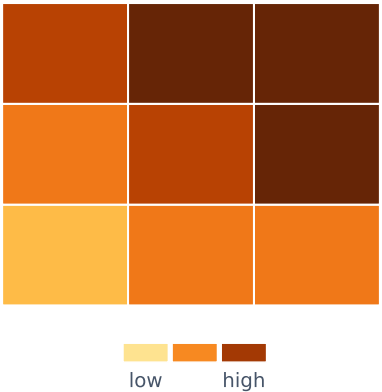
Population density is a classic thematic pattern

Maps and projections

Reference map
(shows fixed locations)



Thematic map
(shows a variable: density)



Geographic data

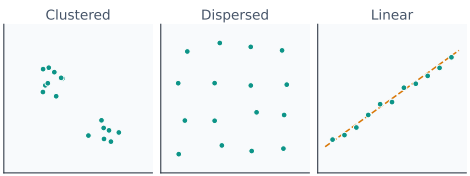
- **Quantitative** 定量 data are numbers; **qualitative** 定性 data are descriptions.
- Sources: **GIS** 地理信息系统, **GPS** 全球定位系统, **remote sensing** 遥感, census, fieldwork.
- All geographic data is tied to a **location** 位置.

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** 隐私 concerns.

Spatial concepts

- **Absolute location** 绝对位置 = coordinates; **relative location** 相对位置 = position to others.
- **Distance decay** 距离衰减: interaction falls with distance.
- **Time-space compression** 时空压缩: technology makes far places feel close.



spatial patterns and distribution

Worked example – density is not distribution

Egypt: 109 million people in $1{,}010{,}000\,\mathrm{km}^2$. Give the density – and explain why it tells you almost nothing about where Egyptians live.

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

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** 环境决定论 (rejected): environment decides development.
- **Possibilism** 或然论 (accepted): environment sets limits; people choose.
- **Sustainability** 可持续性: present needs without harming the future.

People choose within environmental limits

Scales of analysis

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

how scale changes the pattern

Regional analysis

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

formal: one shared trait

functional: around a node

perceptual: fuzzy borders

three ways to define a region

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.

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