

Thinking Geographically

AP Human Geography ■ Unit 1

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Thinking Geographically

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

1 Maps and data

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

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.

2 Space, scale, and region

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└ Space, scale, and region

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

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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

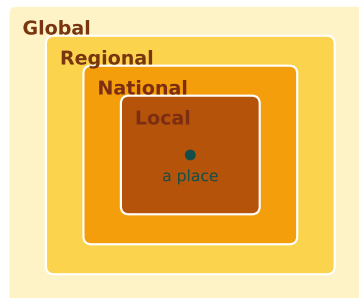
- **Environmental determinism** 环境决定论 (rejected): environment decides development.
- **Possibilism** 或然论 (accepted): environment sets limits; people choose.
- **Sustainability** 可持续性: present needs without harming the future.



People choose within environmental limits

Scales of analysis

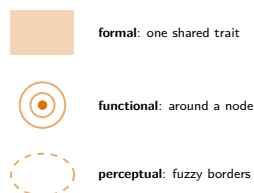
- Data is read at **global** 全球, **regional** 区域, **national** 国家, or **local** 地方 scale.
- The scale chosen changes the pattern you see.
- **Aggregation** 聚合 into large units hides local variation.



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').



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, func-
tional, 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 re-
gions could look very different, so a conclusion
drawn at the regional scale would be inaccurate at
the country scale.”*

Explain asks for **reason-
ing**: 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