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Studying Geography: Introduction to Mapping

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Geographers' Tools

TOPICS in "INTRODUCTION TO MAPPING"

- Cartography
- Location Systems
- Maps and their Parts
- Geographic Information Technology
 - Remotely Sensed Information
 - Automated Cartography (mapping by software)
 - Geographic Information Systems (GIS)

EXAM 1 follows this section

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Geographers' Needs

When studying the earth we need to be able to do three things:

1. **Collect** data (using specialized tools)
2. **Locate** data that has been collected (using a grid spread over the Earth's surface)
3. **Portray** data spatially (using cartographic techniques to create maps)

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The Map

The map is our special tool because it:

1. Gives a wealth of **information** at a glance.
2. Shows **relationships** between locations.
3. Can be used to **influence** people by the visual components included in the map.

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Cartographic Terms

❖ Map:

A view of the earth or a portion of its skin drawn to scale (proportion) on a flat surface.

❖ Cartography:

The art and science of map making.

❖ Atlas:

A collection of maps.

❖ Globe:

Spherical-shaped map or model of the earth.

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Cartographic Terms

❖ Thematic map:

A cartographic representation of a particular subject; it is a special-purpose map.

❖ Cartogram:

A map that uses data other than land surface to portray the size of an area.

❖ Mental map:

A map drawn from memory representing a person's perception of an area (size, content and proximity of component parts).

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Cartographic Terms

❖ Cartographer:

Mapmaker; portrayer of information.

Selects the information to be shown and Decides how it will be portrayed on the map.

❖ Reader:

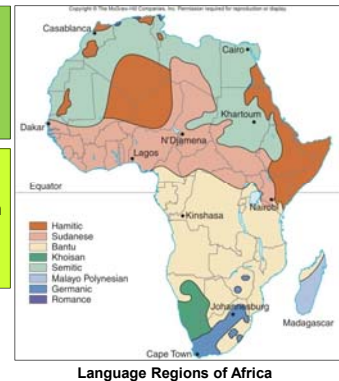
YOU, the interpreter of the information.

➤ Therefore, you must be aware of the options a mapmaker has when creating a map.

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Thematic or Special-Purpose Map

A thematic map focuses on one subject or topic. Contains data or information that is relevant to the theme and omits other geographic material.



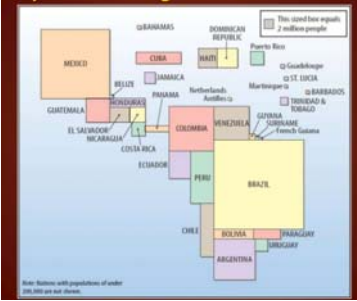
Cartogram

A cartogram is a map that uses data other than land surface to portray an area's size.

It does not represent true size or true shape.



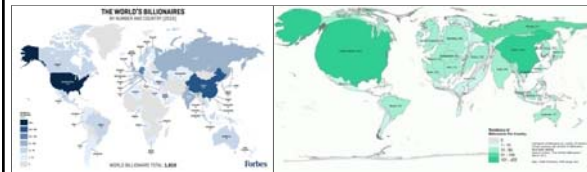
Population Cartogram of Latin America



Countries are drawn to size according to their population (above), NOT land area (left).

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Mapping Billionaires



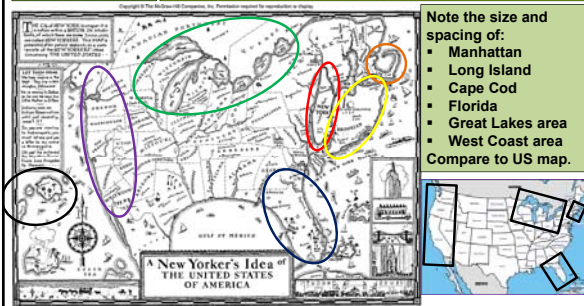
Standard Thematic Map:
Uses color intensity to show headcount within a country's land area and shape.

Cartogram:
The size of each country is drawn according to the number of billionaires living there, not its land area.

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Mental Map

❖ A mental map is an illustration of a person's perception of an area. It is drawn from memory.
➤ Distance, size and proximity are influenced by a person's preferences and familiarity with the area portrayed.



Note the size and spacing of:
• Manhattan
• Long Island
• Cape Cod
• Florida
• Great Lakes area
• West Coast area
Compare to US map.

Map Design

❖ The map reader must be aware of the map-maker!
WHY?

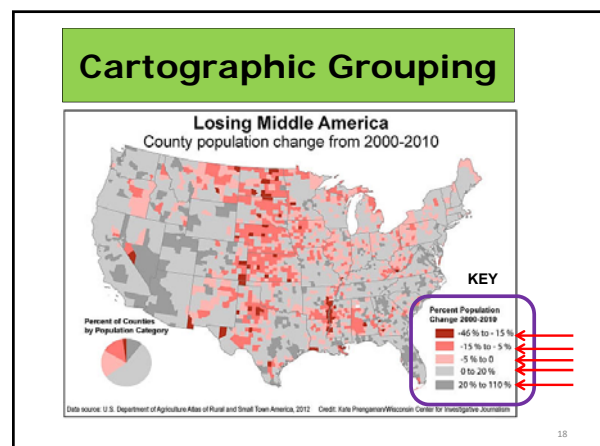
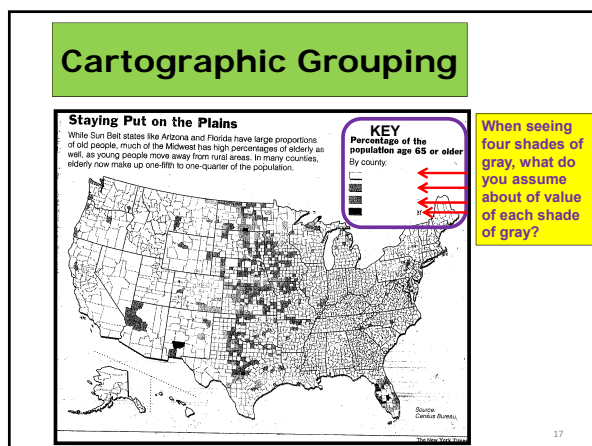
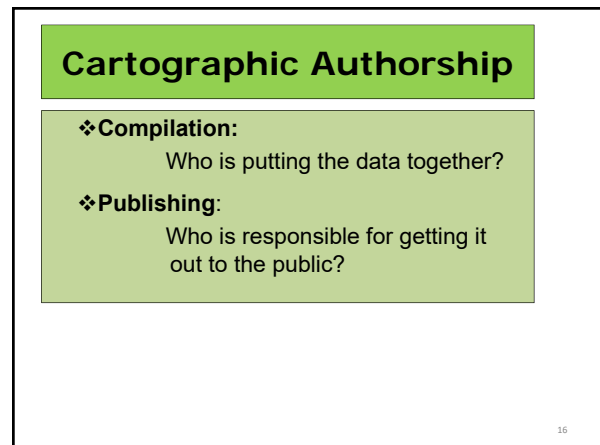
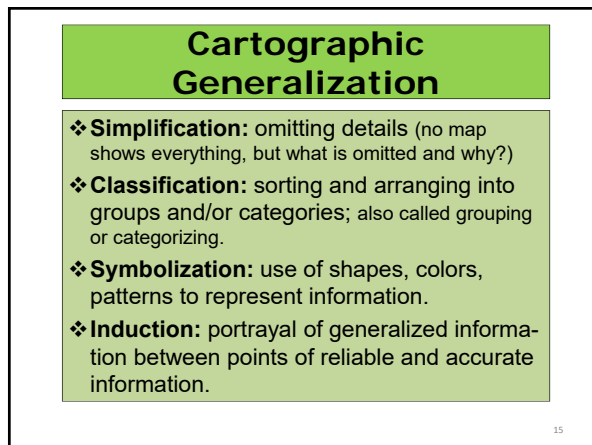
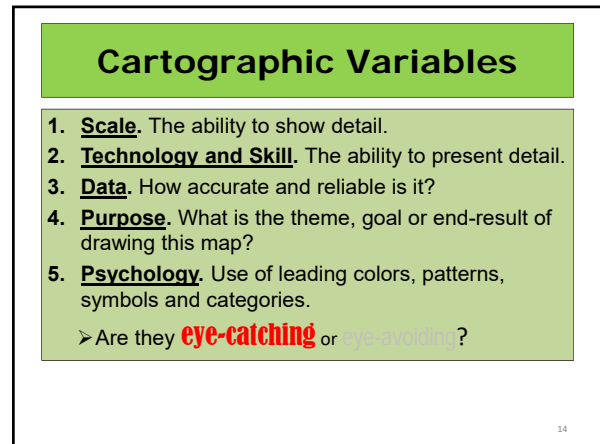
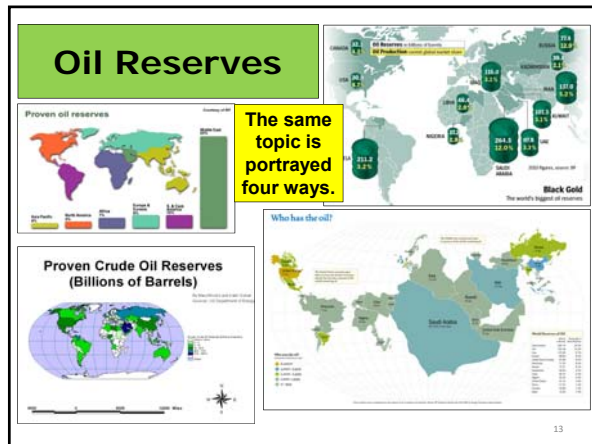
➤ Because map-makers use cartographic generalization to create the end product.

✓ The mapmaker selects the information and subjects to be shown.

▪ So what was omitted?
▪ How is the information being portrayed?

✓ The map be influenced or limited by a number of stylistic factors chosen by the mapmaker.

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Using Maps to Compare Service: Classic 2009 Verizon vs AT&T Dualing Ads

Verizon Wireless **AT&T**

Actual US population map

5X More 3G Coverage

Comparison based on square miles. Coverage not available everywhere.

In 2009 AT&T and Verizon attacked each other in warring ads and in court. AT&T said map ads were misleading because it had nationwide voice, serviced a high percentage of the American people and had "somewhat slower" wireless service.

https://i.cdn.phonearena.com/images/articles/294951_bumb/verizon-vs-at-t-vs-t-mobile-vs-sprint-coverage-maps.pdf

AUTHORSHIP Point-of-View Map (propaganda)

Find at least six
subliminal symbols
on this map >>>>

SAUDI ARABIA

How can anyone say that selling F-15's to Saudi Arabia isn't a threat to Israel?

Advertisement placed in the NY Times by the Bin Laden Foundation on 5/9/78 in an attempt to influence a US Congressional vote on selling fighter planes to Saudi Arabia.

Outline Map of the Middle East

Israel Jordan Saudi Arabia

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NEXT

Location Systems