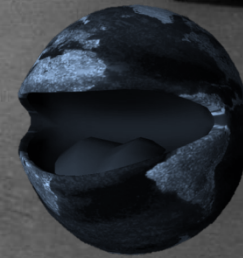


# Maps

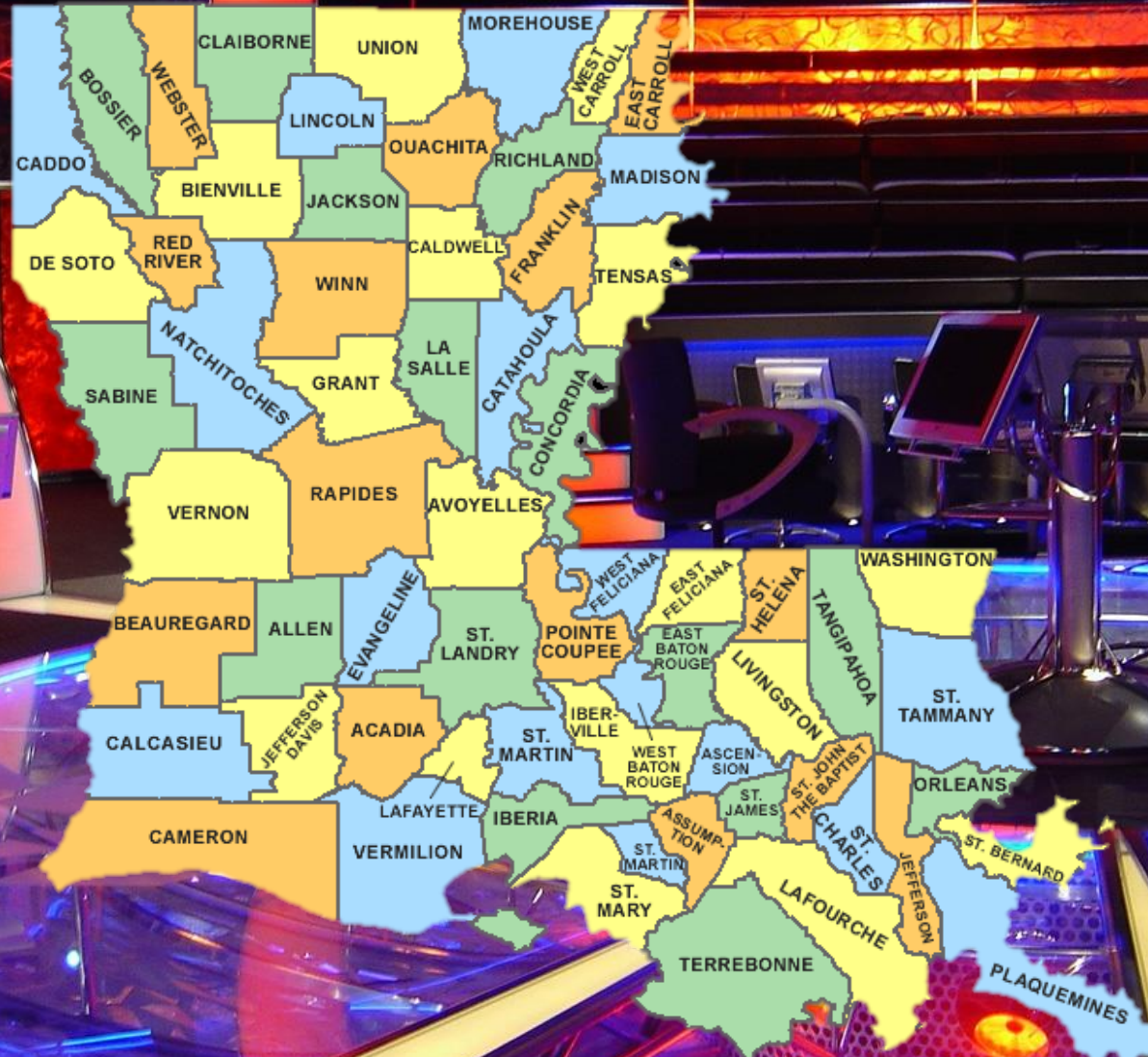
“Relative location is the position on Earth's surface relative to other features.”



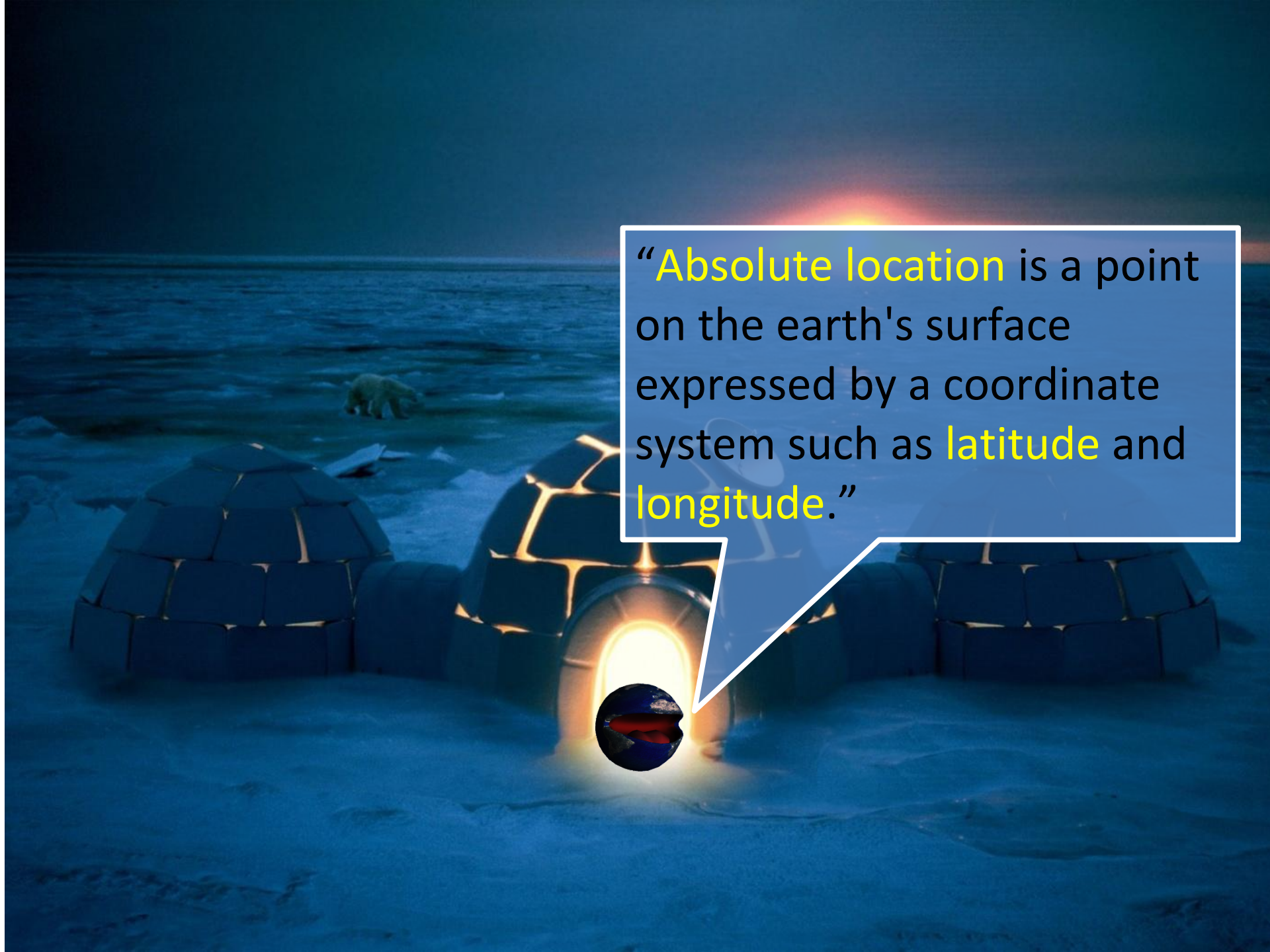
*Ermsberger  
Auburn NY  
1929*



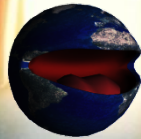
# Where is Caddo Parish (County) located relatively?





A snowy landscape at dusk or dawn. In the foreground, there are three igloos made of ice blocks. The central igloo has a glowing entrance. In the background, a polar bear is visible on the snow. The sky is dark with a hint of light on the horizon.

“**Absolute location** is a point on the earth's surface expressed by a coordinate system such as **latitude** and **longitude**.”





A wide-angle photograph of St Paul's Cathedral in London, showing its iconic dome and the surrounding colonnade. A large, semi-transparent red banner is overlaid across the middle of the image, containing the text "What is longitude?".

What is longitude?

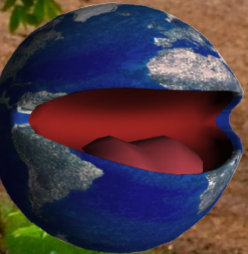


“Longitude is the numbering system that enumerates meridians, arcs that are drawn between the north and south pole.”



CROSSES  
HERE

AT THIS POINT YOU ARE  $\frac{1}{4}$  OF  
THE WAY AROUND THE WORLD  
FROM GREENWICH, ENGLAND





# Longitude



0° Longitude runs through Greenwich, England and is known as the Prime Meridian



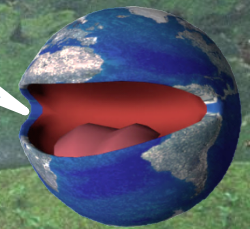
# EQUATOR

What is latitude?





“**Latitude** is the numbering system that enumerates **parallels**, circles drawn around the globe parallel to the equator and at right angles to the meridians.”





# Latitude



0° Latitude is the equator.

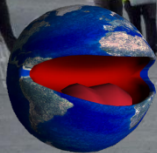
90° north latitude is the north pole.

90° south latitude is the south pole.



COVENTRY TRANSPORT MUSEUM

“A **Time zone** is a region on Earth that has a uniform standard time for legal, commercial, and social purposes.”



COVENTRY, U.K.  
ARNHEM, NETHERLANDS  
BELGRADE, SERBIA  
BLOGNA, ITALY  
CAEN, FRANCE  
CORK, IRELAND  
CORNWALL, CANADA  
COVENTRY, CT, U.S.A.  
COVENTRY, NY, U.S.A.  
CRESDEN, RI, U.S.A.  
DRESDEN, GERMANY  
MALLVAROS, HUNGARY  
GALATI, ROMANIA  
GRANBY, CANADA

TIME ZONE CLOCK  
FRANÇOISE SCHEIN

GRAZ, AUSTRIA  
HONG KONG  
KUNMING, CHINA  
MOSCOW, RUSSIA  
PARIS, FRANCE  
PRAHA, CZECH REPUBLIC  
STRAVA, SLOVAKIA  
SYDNEY, AUSTRALIA  
TOKYO, JAPAN  
WASHINGTON, D.C., U.S.A.  
WILMINGTON, DELE  
YOKOHAMA, JAPAN

Ideas are stronger than time and space.  
I conceived the TIME ZONE  
in 1988 for the



A surreal image featuring a golden zipper that appears to be unzipping a sky filled with white and grey clouds. In the upper center, a large, dark, cratered moon is visible against a deep blue background. The zipper pull is at the bottom center, and the teeth of the zipper extend upwards, creating a vertical opening in the sky.

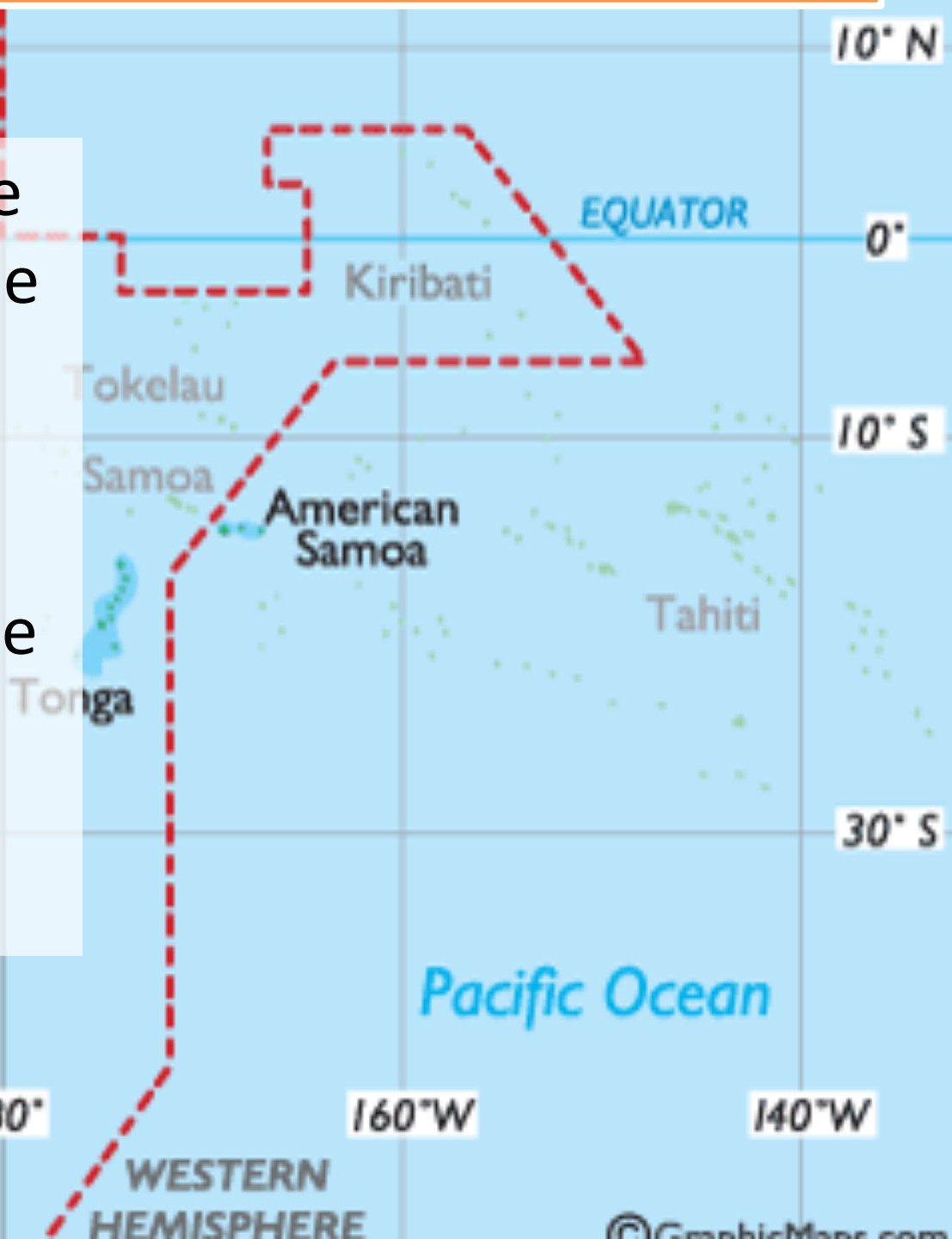
What is the international date line?



**“The International Date Line** is an imaginary line on the surface of the Earth, that runs from the north to the south pole and demarcates one calendar day from the next.”

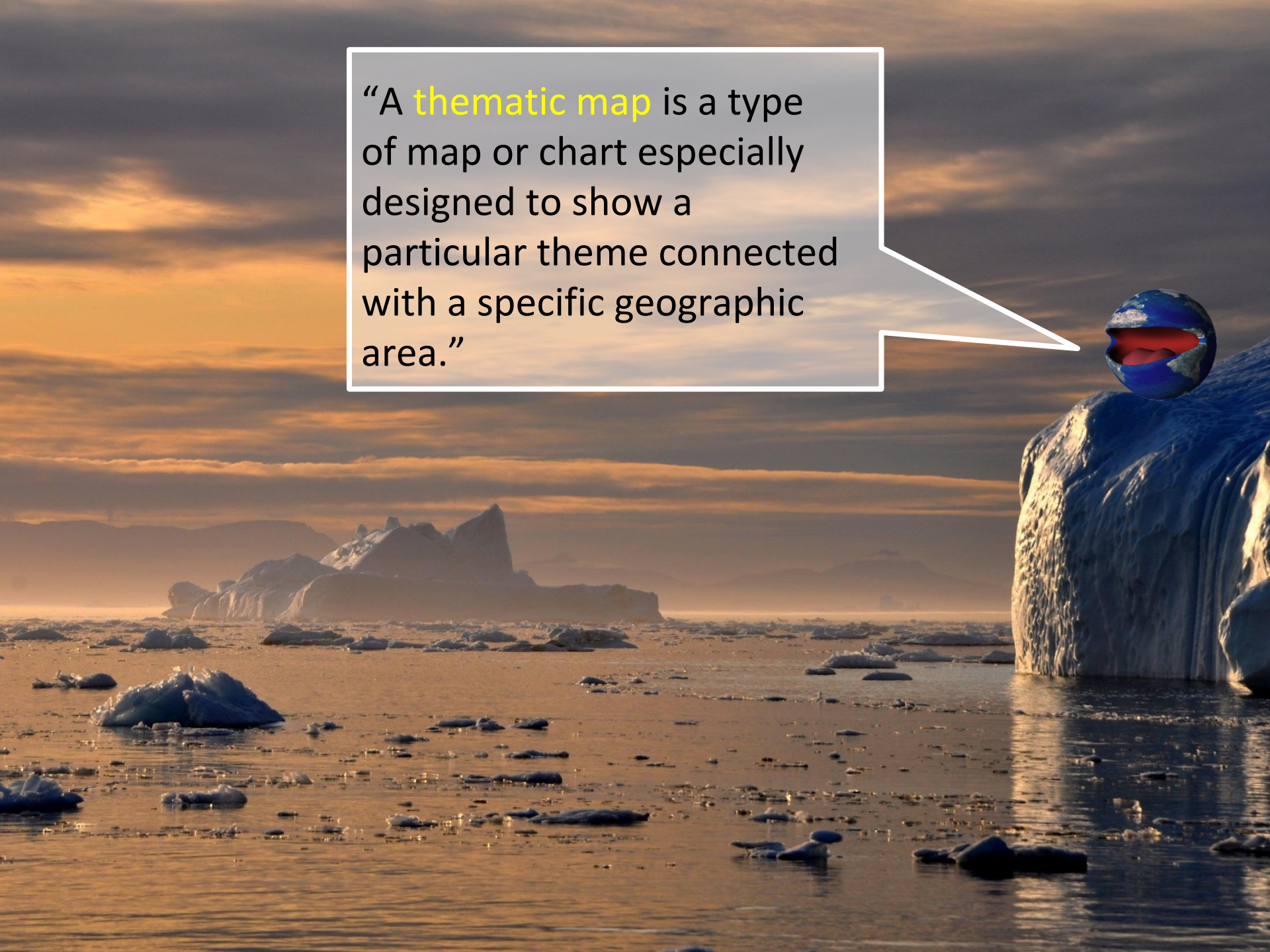
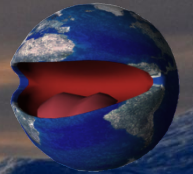


A traveler crossing the International Date Line eastbound subtracts one day, or 24 hours, so that the calendar date to the west of the line is repeated.

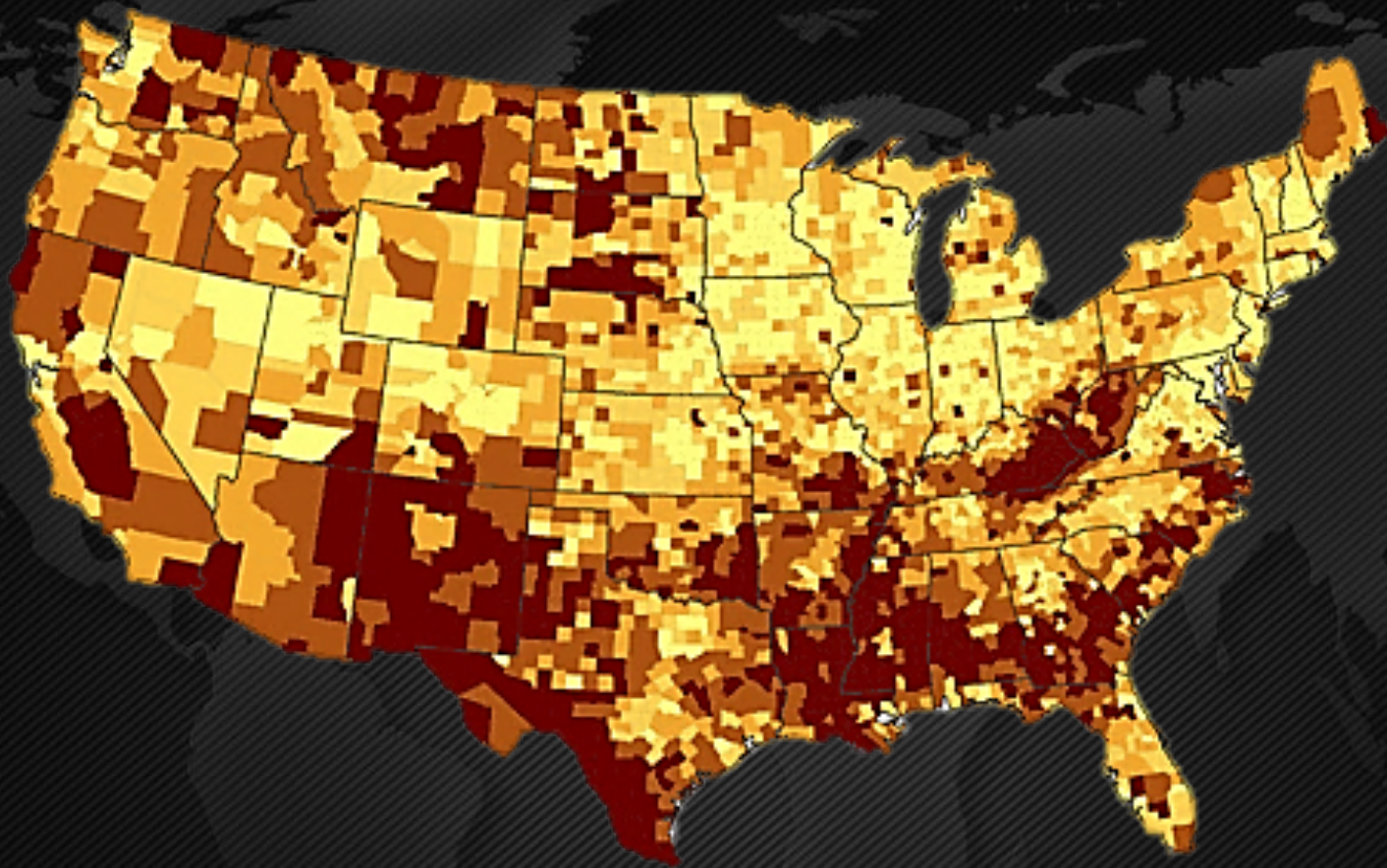




“A **thematic map** is a type of map or chart especially designed to show a particular theme connected with a specific geographic area.”





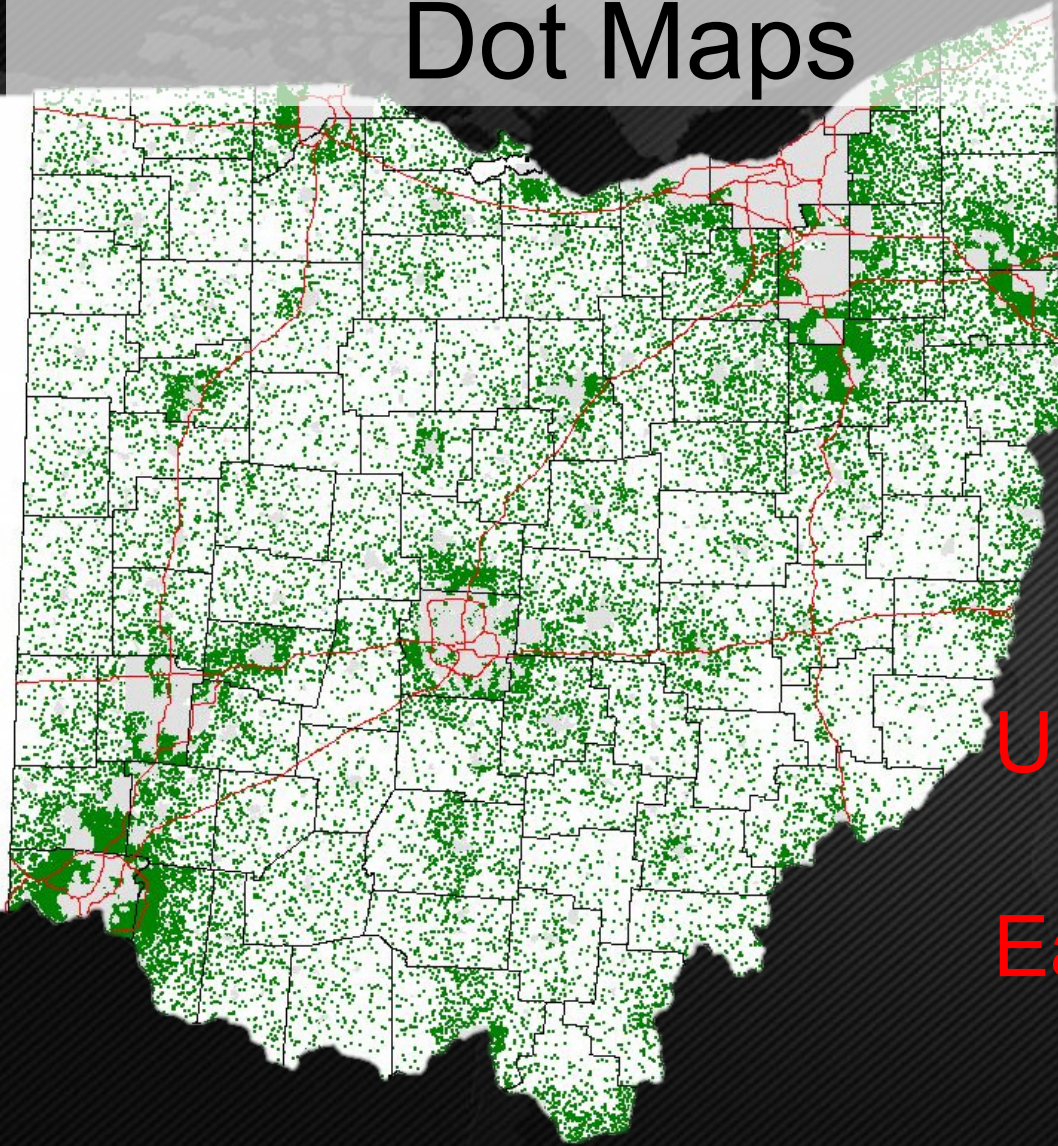


## Choropleth Maps

Uses differences in shading, coloring, or the placing of symbols

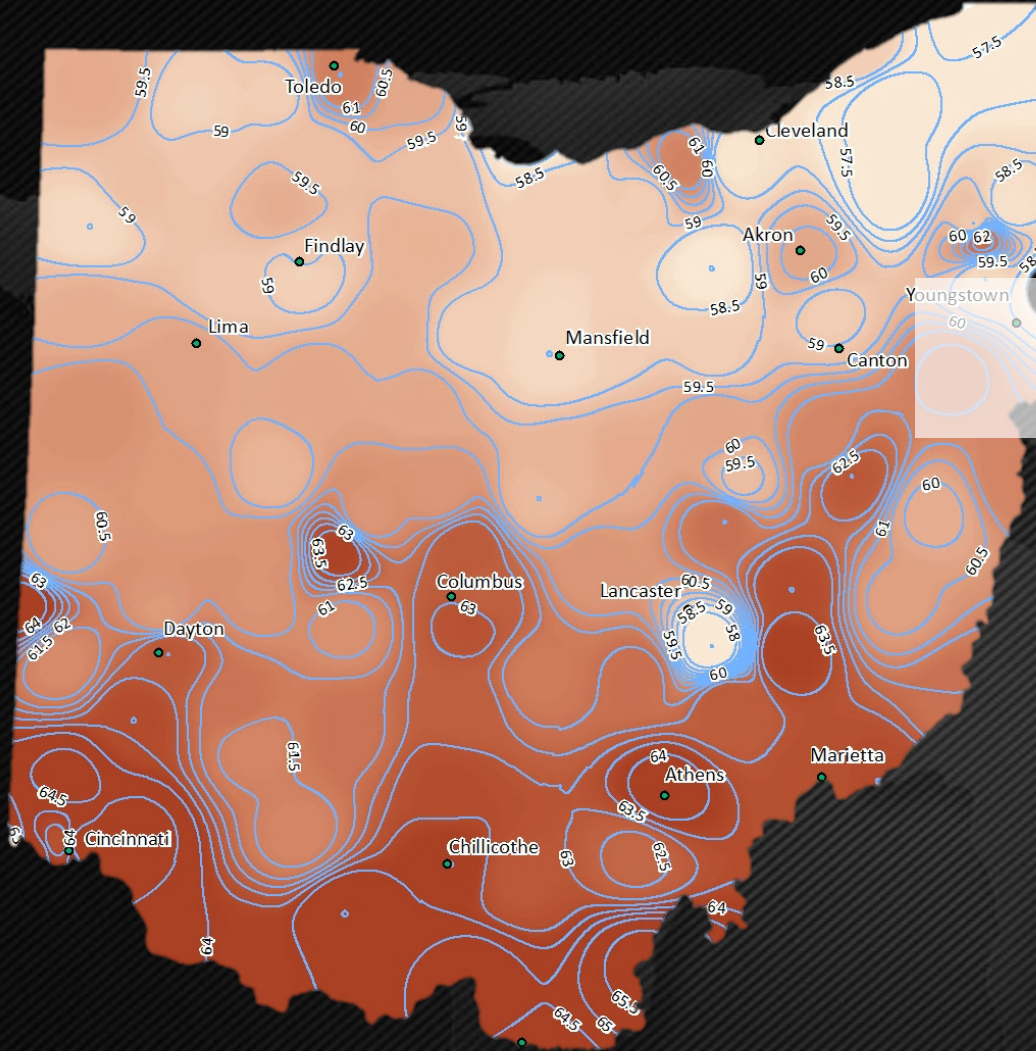


# Dot Maps



Uses dots in a specific area.  
Each dot is a specific quantity.





# Isoline Maps

Uses continuous lines joining points of the same value



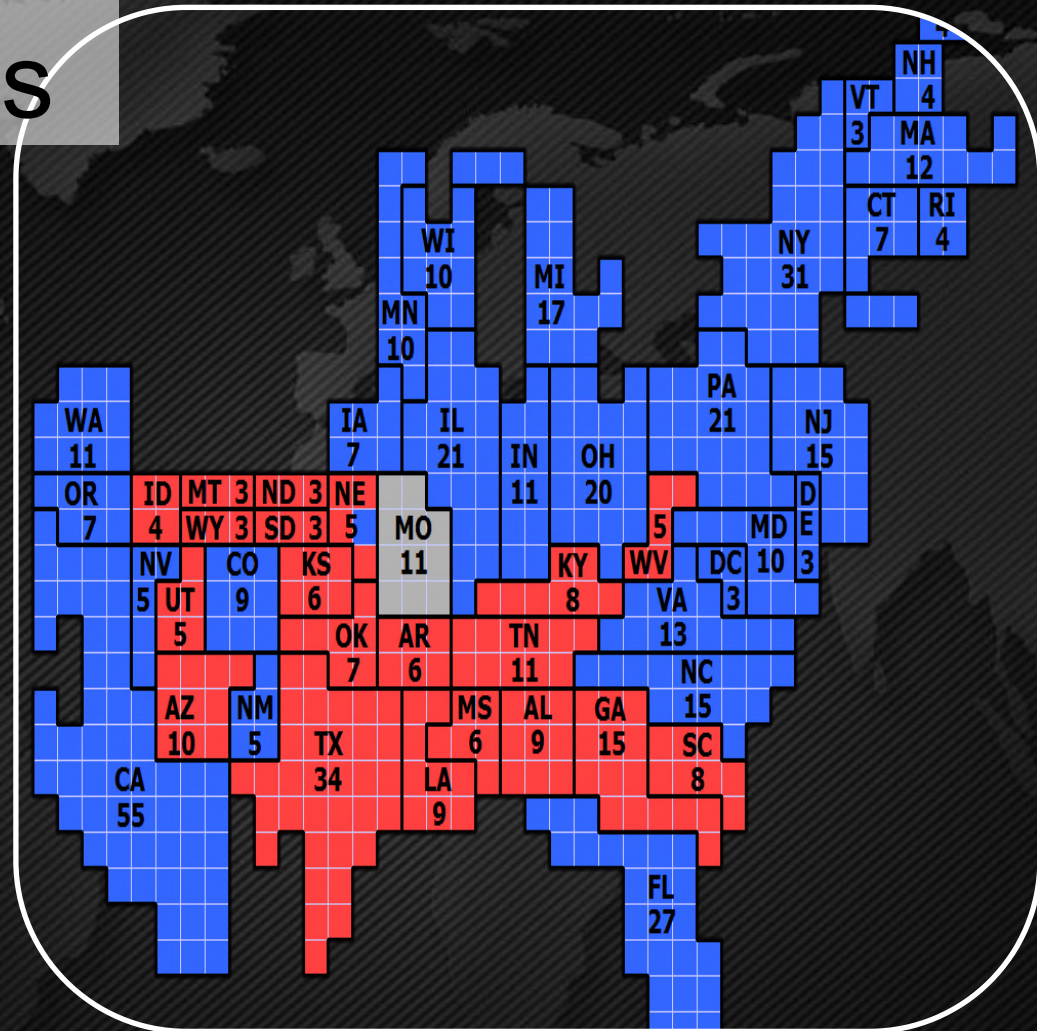
# Mental Maps



Shows an person's internal perception of space

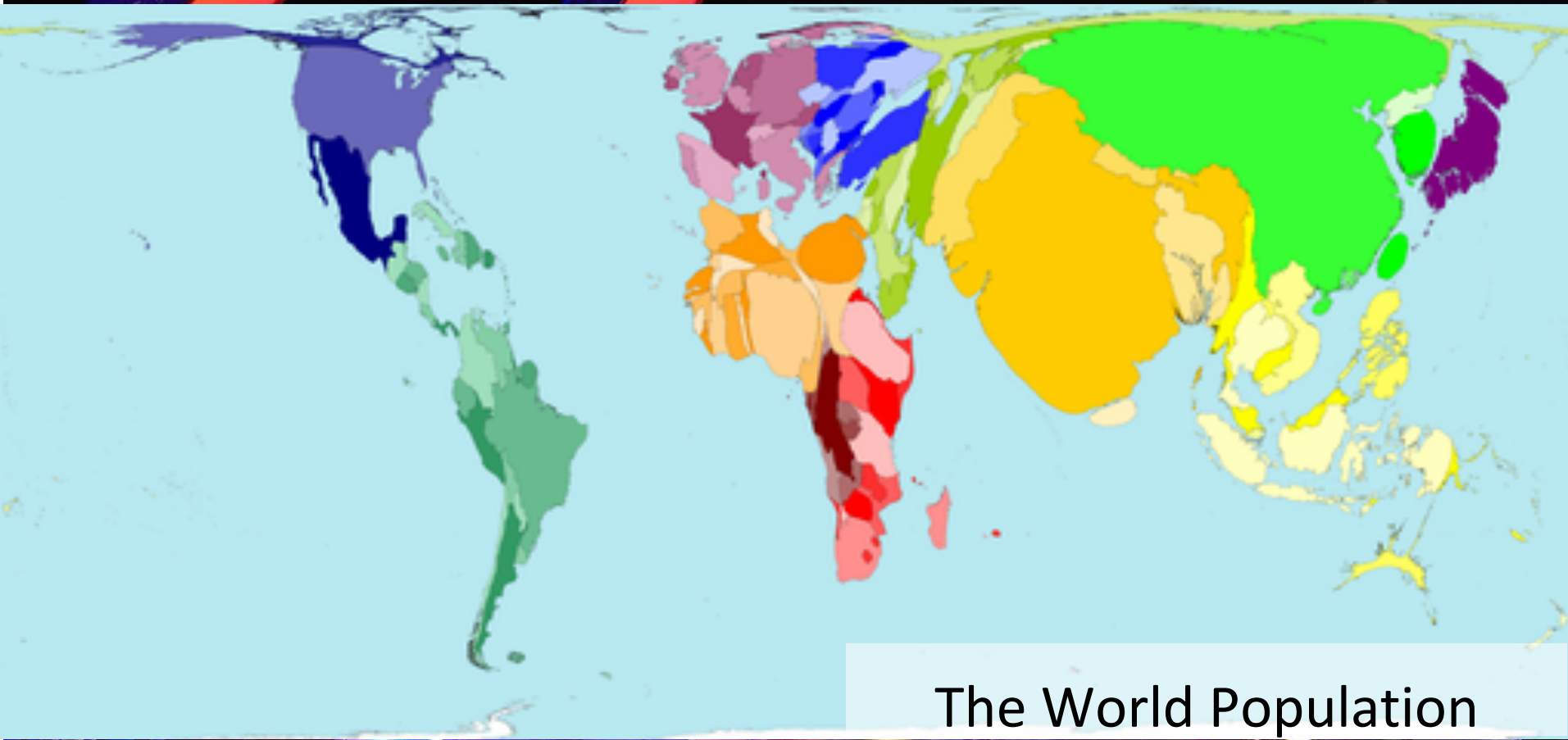


# Cartograms



Expands or shrinks the area of locations to demonstrate different types of data.

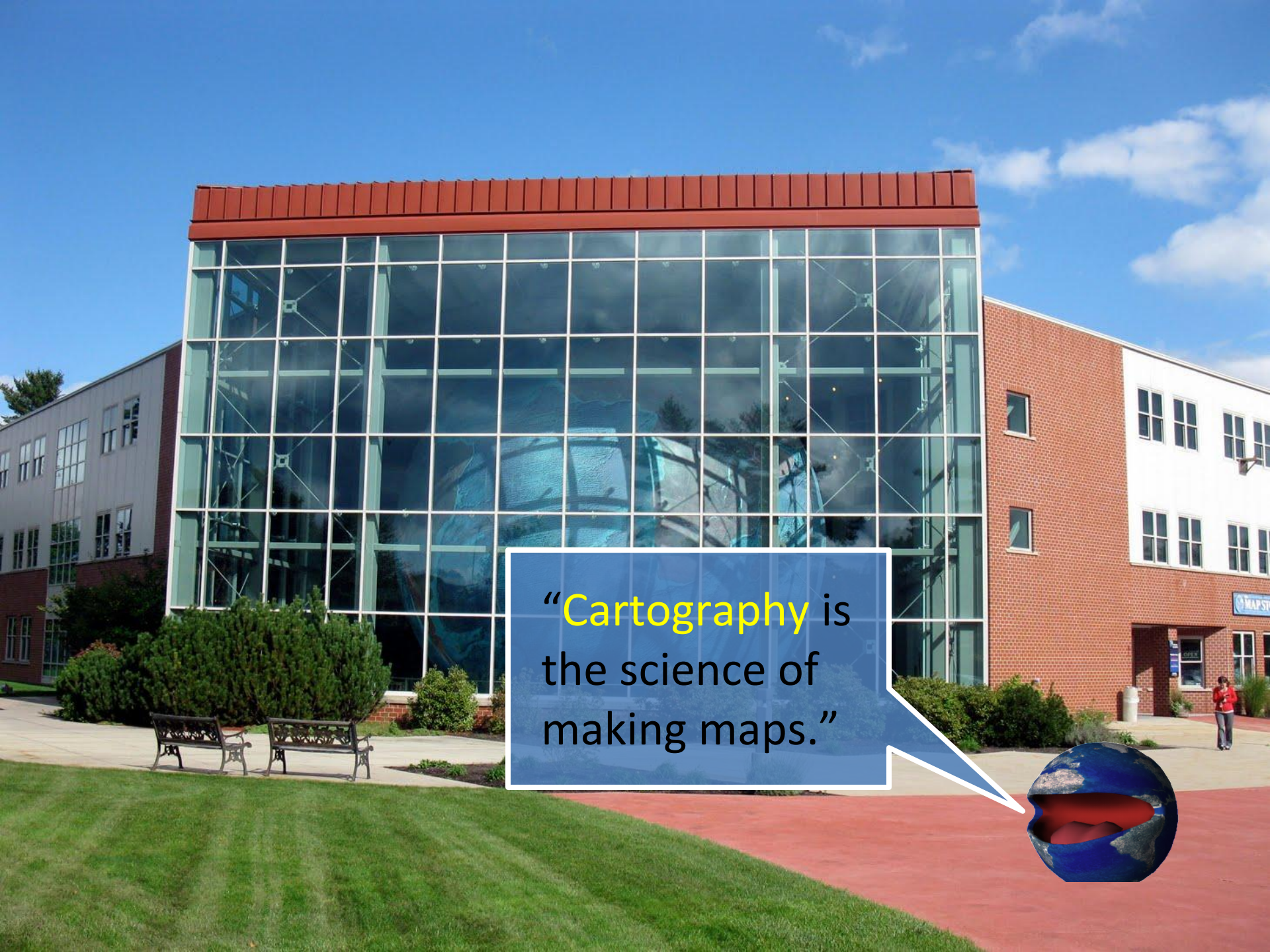




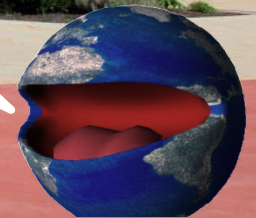
The World Population

What does this map show you about the world's population?





“Cartography is the science of making maps.”







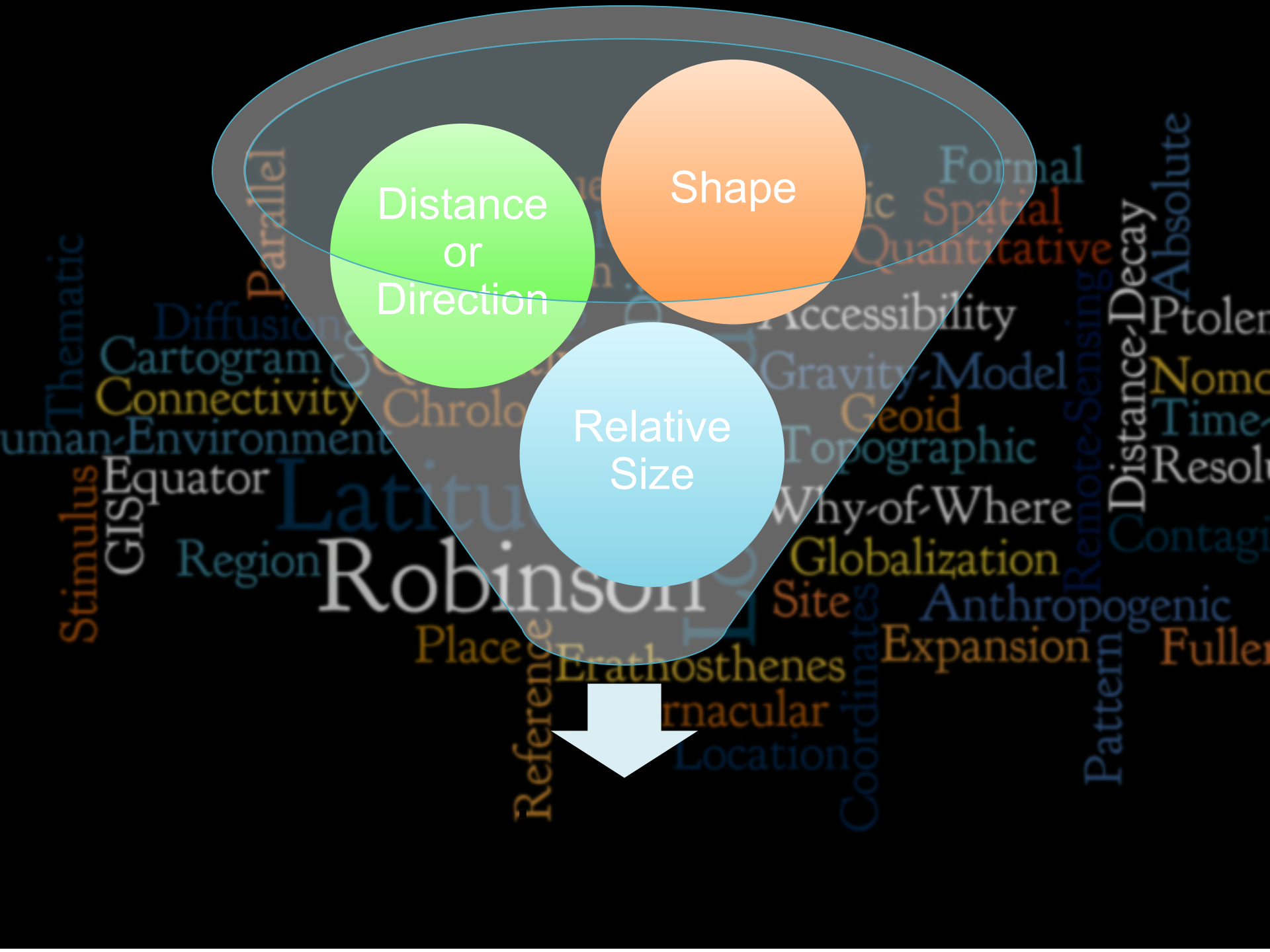
What problems may occur when making a flat map out of this obloid spheroid?



“**Projection** is the scientific method of transferring location on Earth’s surface to a flat map.”







Distance  
or  
Direction

Shape

Relative  
Size



# Mercator Projection



Distortion:  
Size and Shape

The standard map projection for  
nautical purposes.



# Mollweide Projection

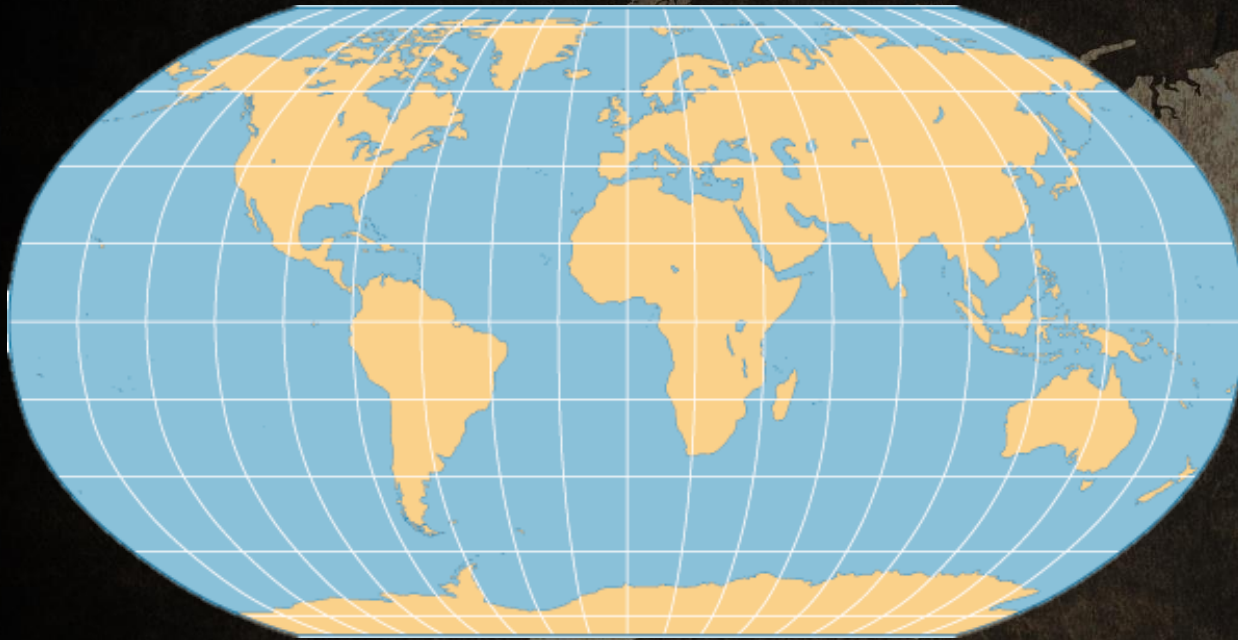


**Distortion:  
Shape and Angle**

Primarily used where accurate representation of area takes precedence over shape



# Robinson Projection

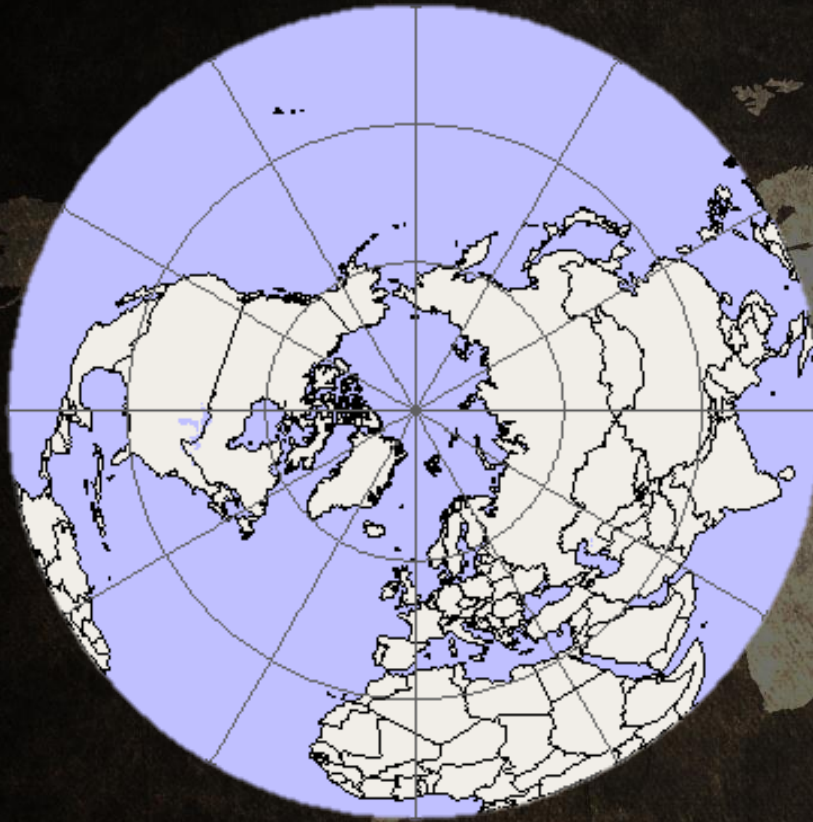


**Distortion:  
Everything  
in small  
amounts**

Primarily used to create visually appealing maps of the entire world



# Azimuthal Equidistant Projection



**Distortion:**  
Shape and distance  
as one gets farther  
from the center.

Used when drawing Polar maps

# Fuller Projection



**Distortion:**  
Maintains the  
accurate shape  
and size but  
rearranges  
direction



# Peters Projection



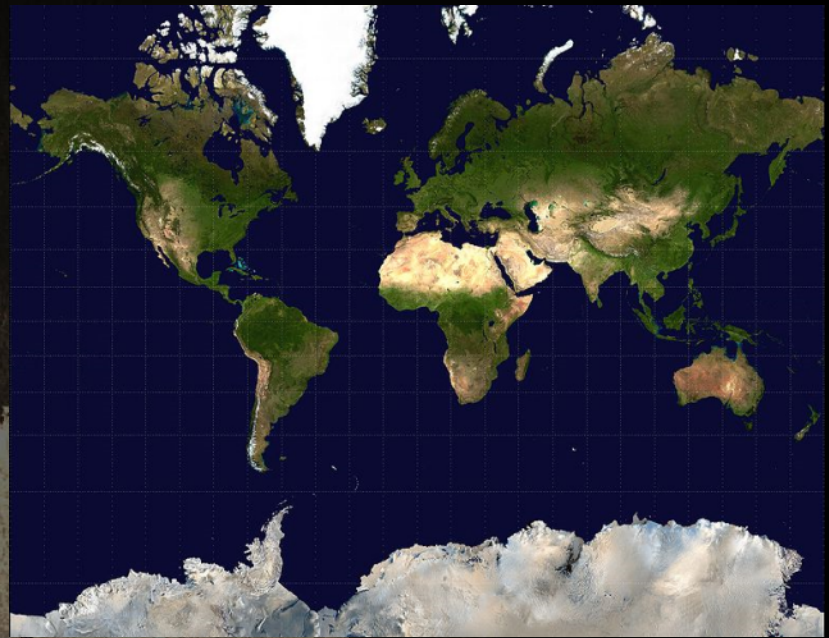
**Distortion:**  
Retains the accurate  
size of landmasses but  
sacrifices shape.

Often seen as a politically driven map.

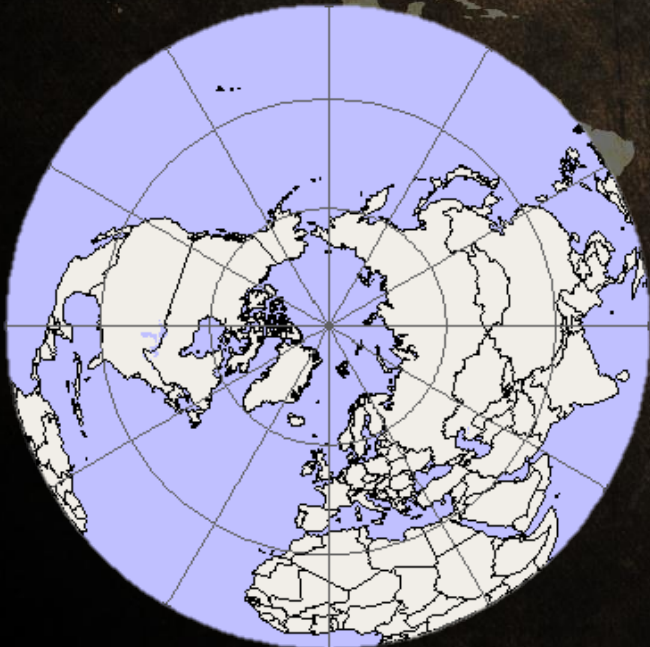
A)



B)



C)



D)

