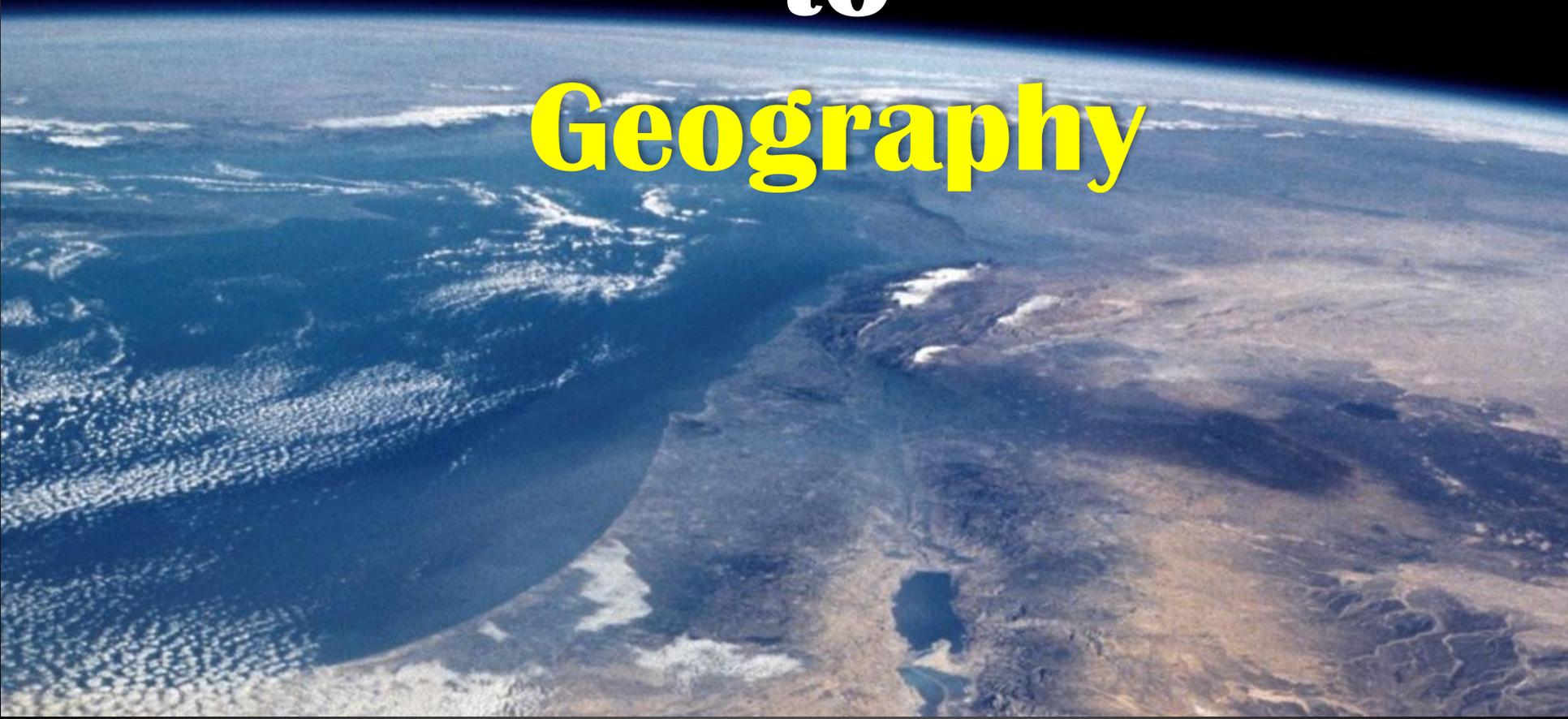


Introduction to

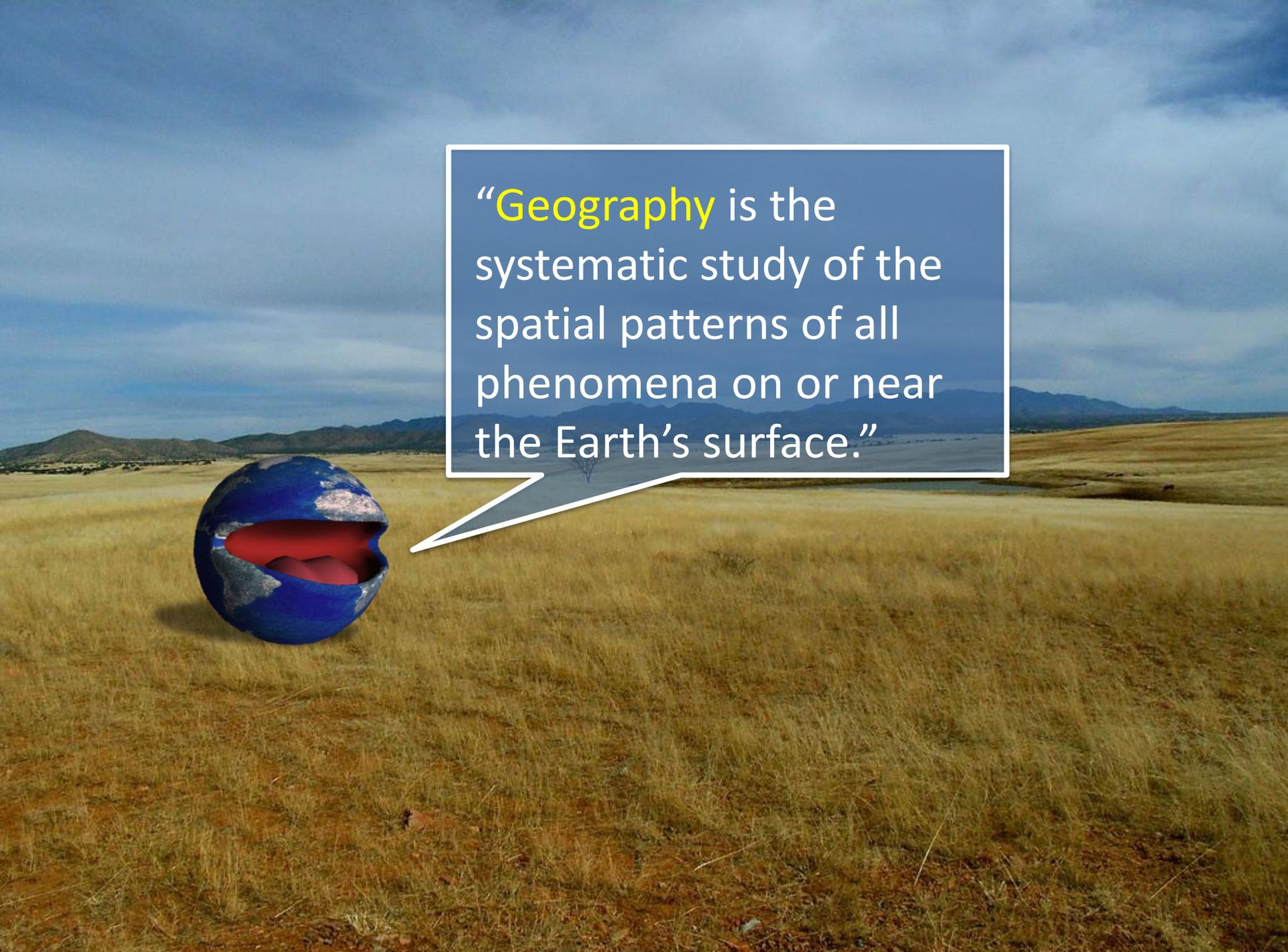
Geography





What is a geography?





“**Geography** is the systematic study of the spatial patterns of all phenomena on or near the Earth’s surface.”

Geography is:



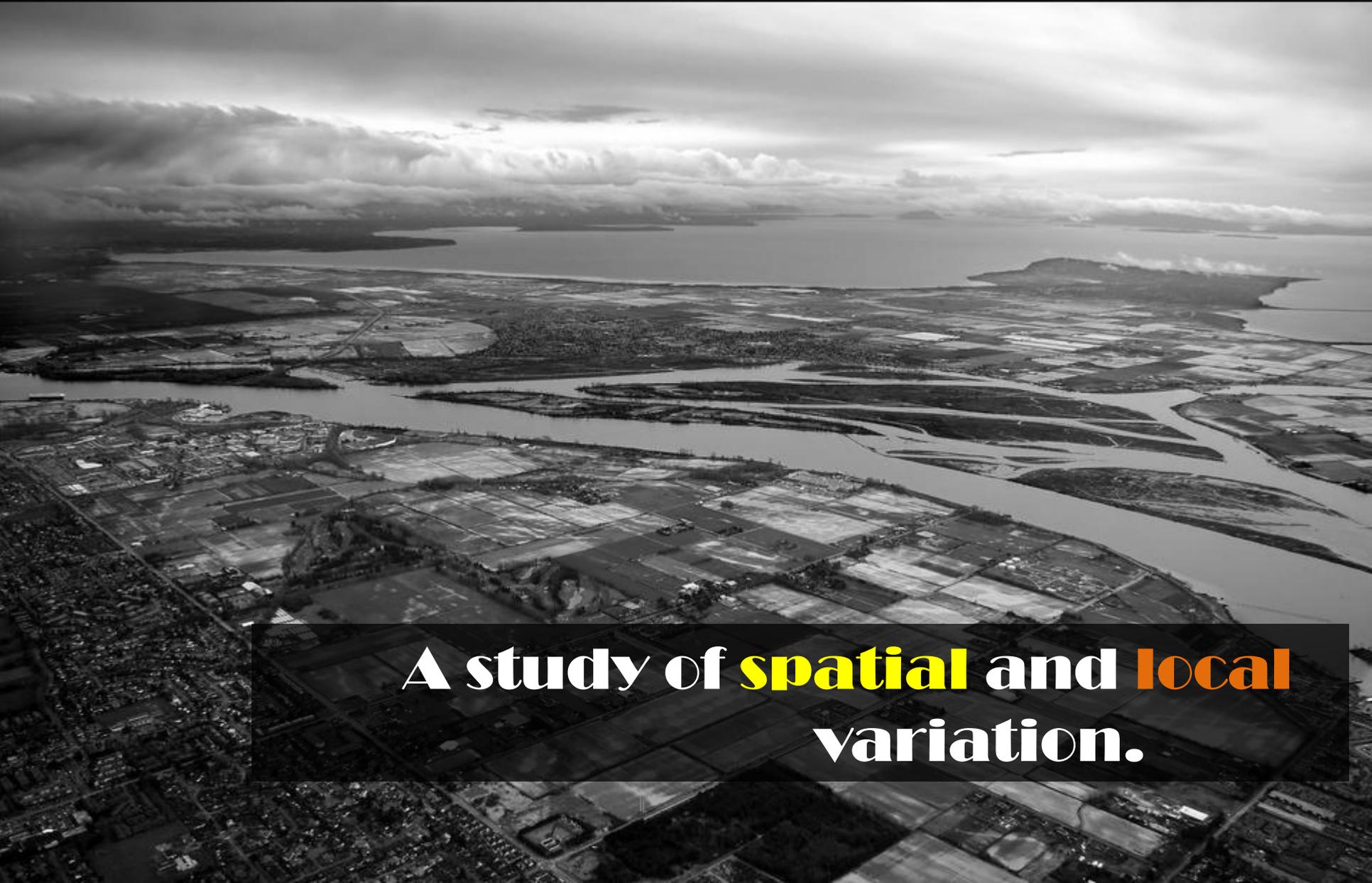
A scientific and descriptive study of the Earth's surface.

Geography is:

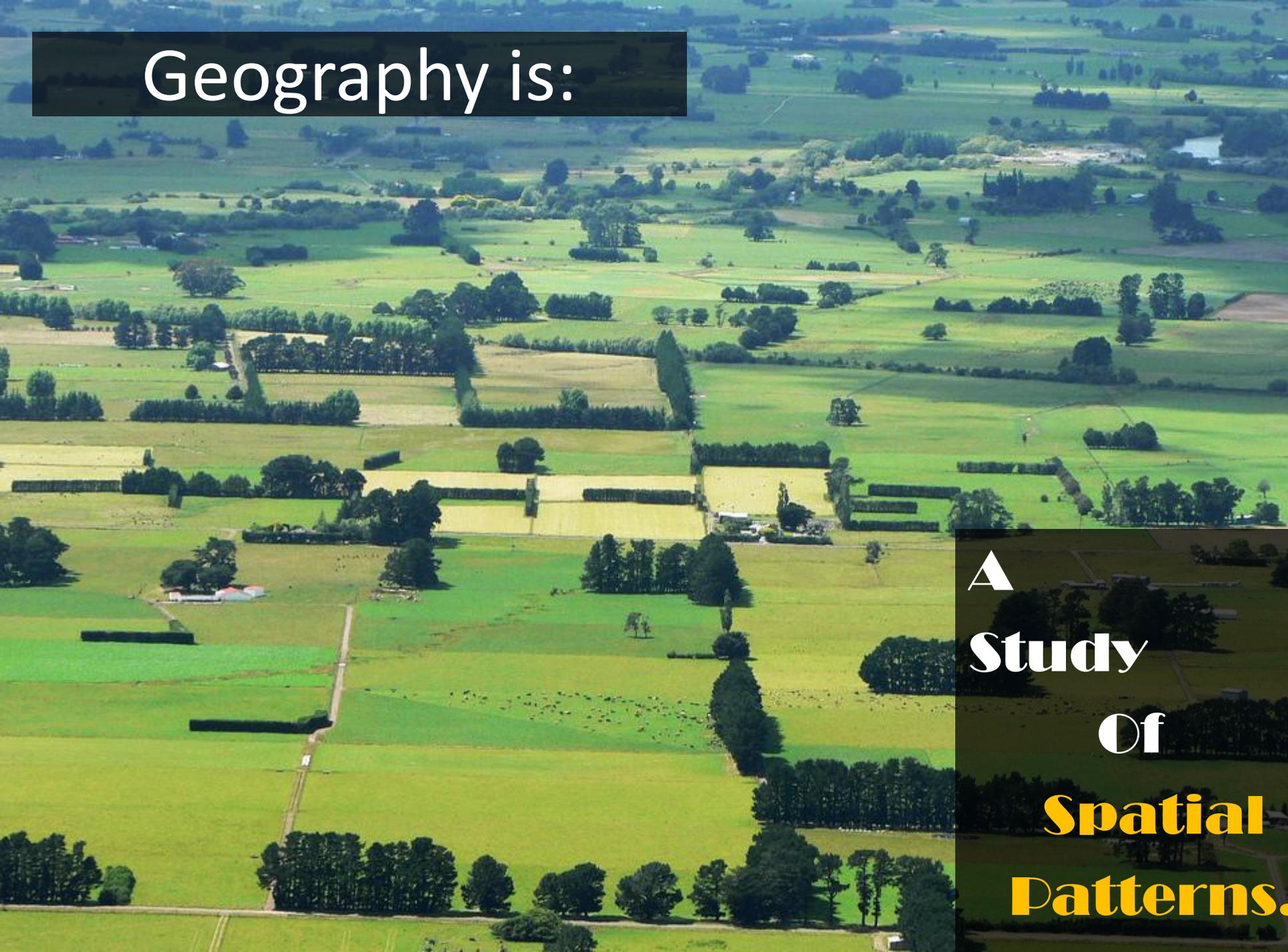


**Interactions between people and
their environment**

Geography is:

An aerial, black and white photograph of a coastal landscape. In the foreground, there is a dense urban area on the left and a large, rectangular agricultural field with a grid pattern. A wide river or estuary flows through the middle ground, branching into smaller channels. The background shows a vast expanse of water under a cloudy sky. The text 'A study of spatial and local variation.' is overlaid on the bottom right of the image.

A study of **spatial and **local** variation.**

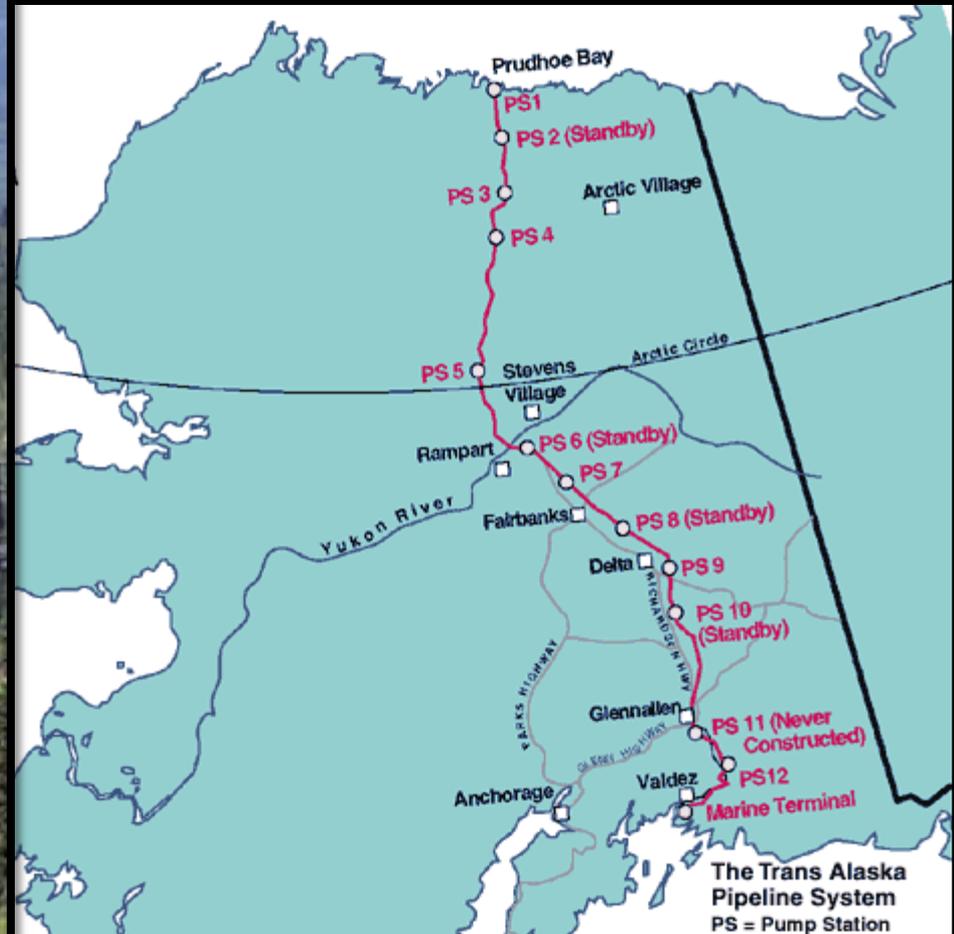
An aerial photograph of a rural landscape. The scene is dominated by vibrant green fields, some of which are divided into smaller plots by dark green hedges and rows of trees. A dirt road or path winds through the fields, and a few small buildings are visible in the distance. The overall impression is one of a well-maintained, agricultural area.

Geography is:

A
Study
Of
Spatial
Patterns.



What is the
why
Of **where?**



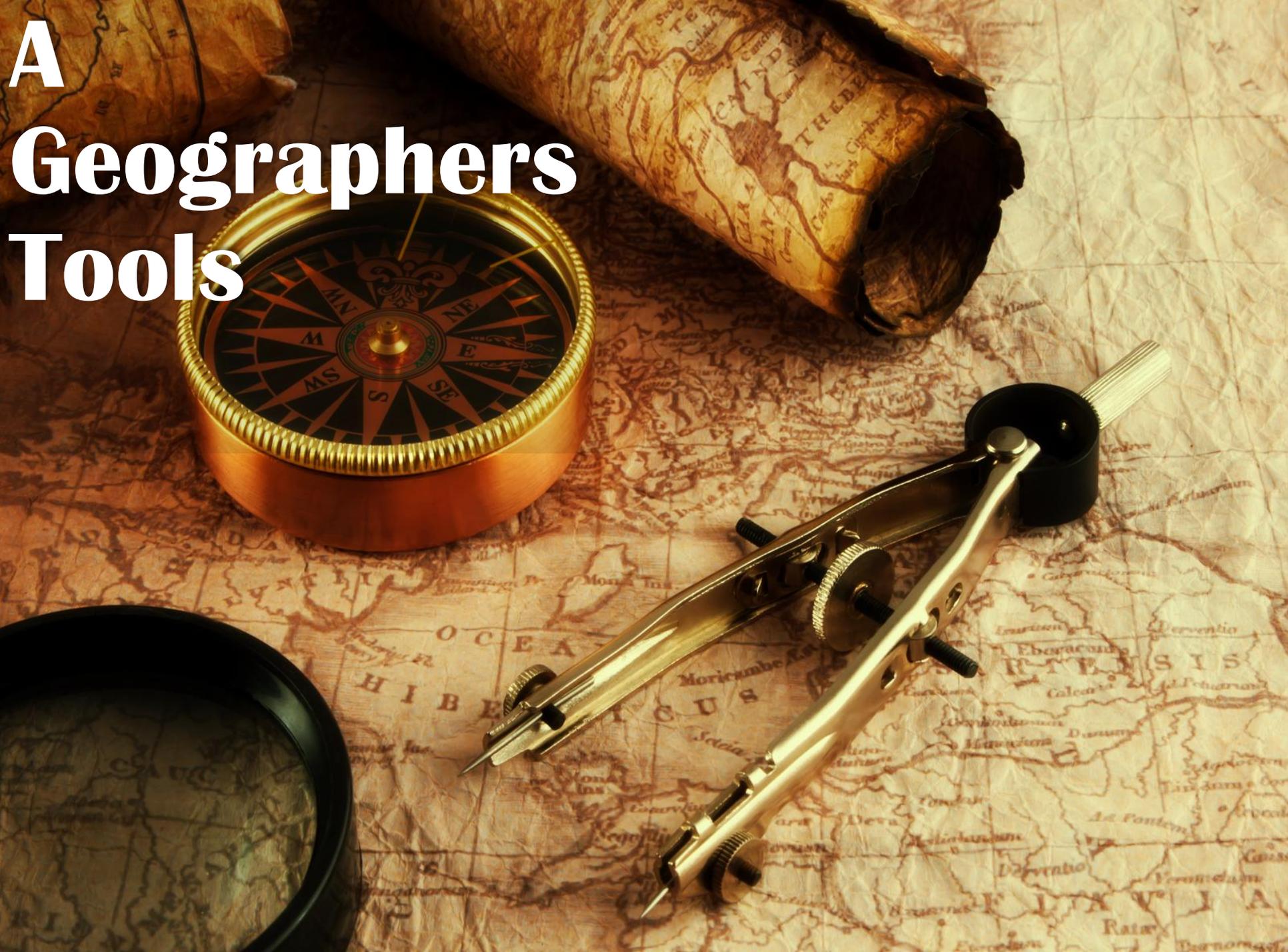
What is the above a picture of? Why might it have been built the way that it was?

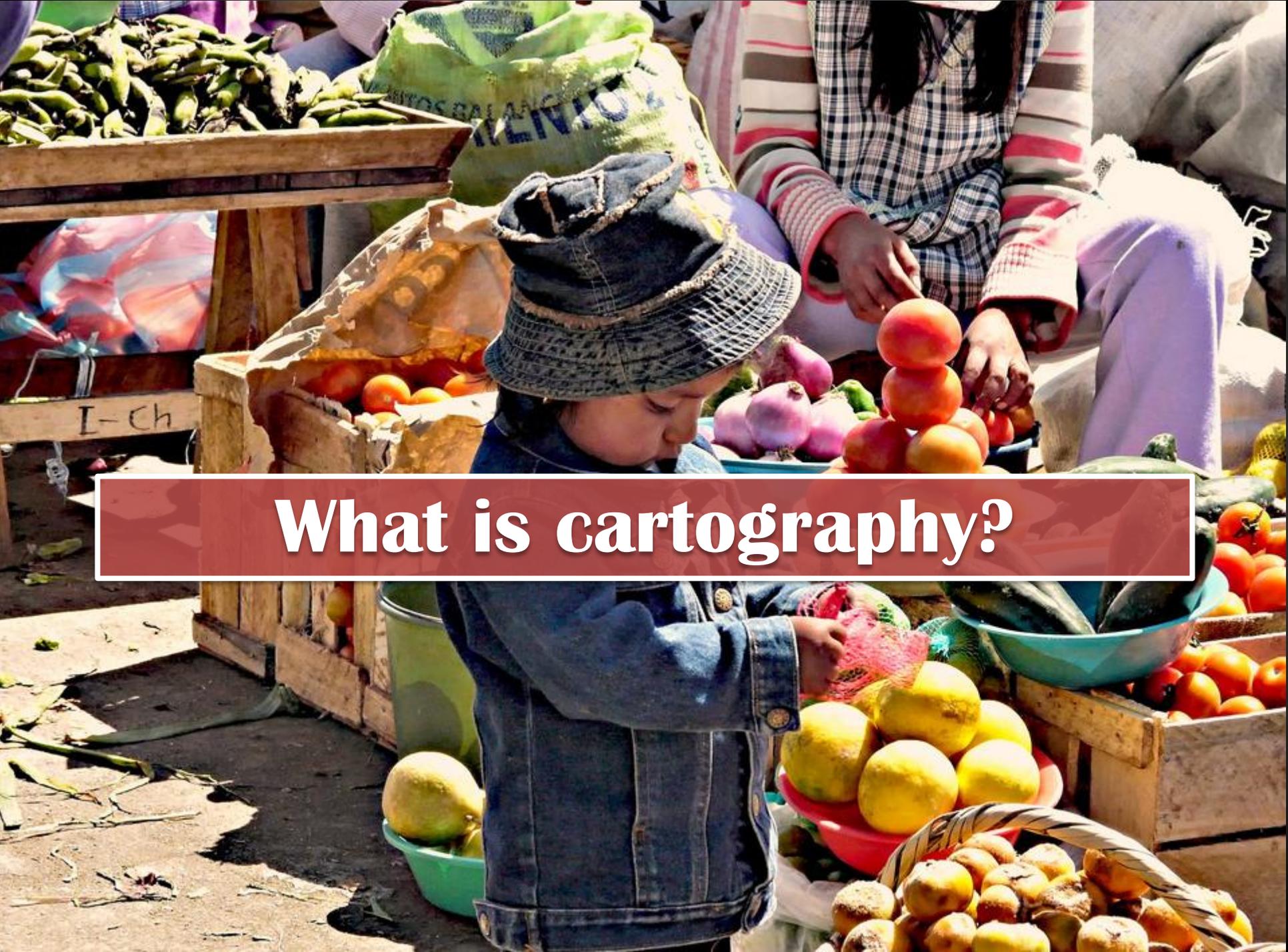


In this **night picture** of the earth, why are some areas **brighter** than others? How would it have looked **200 years ago**?

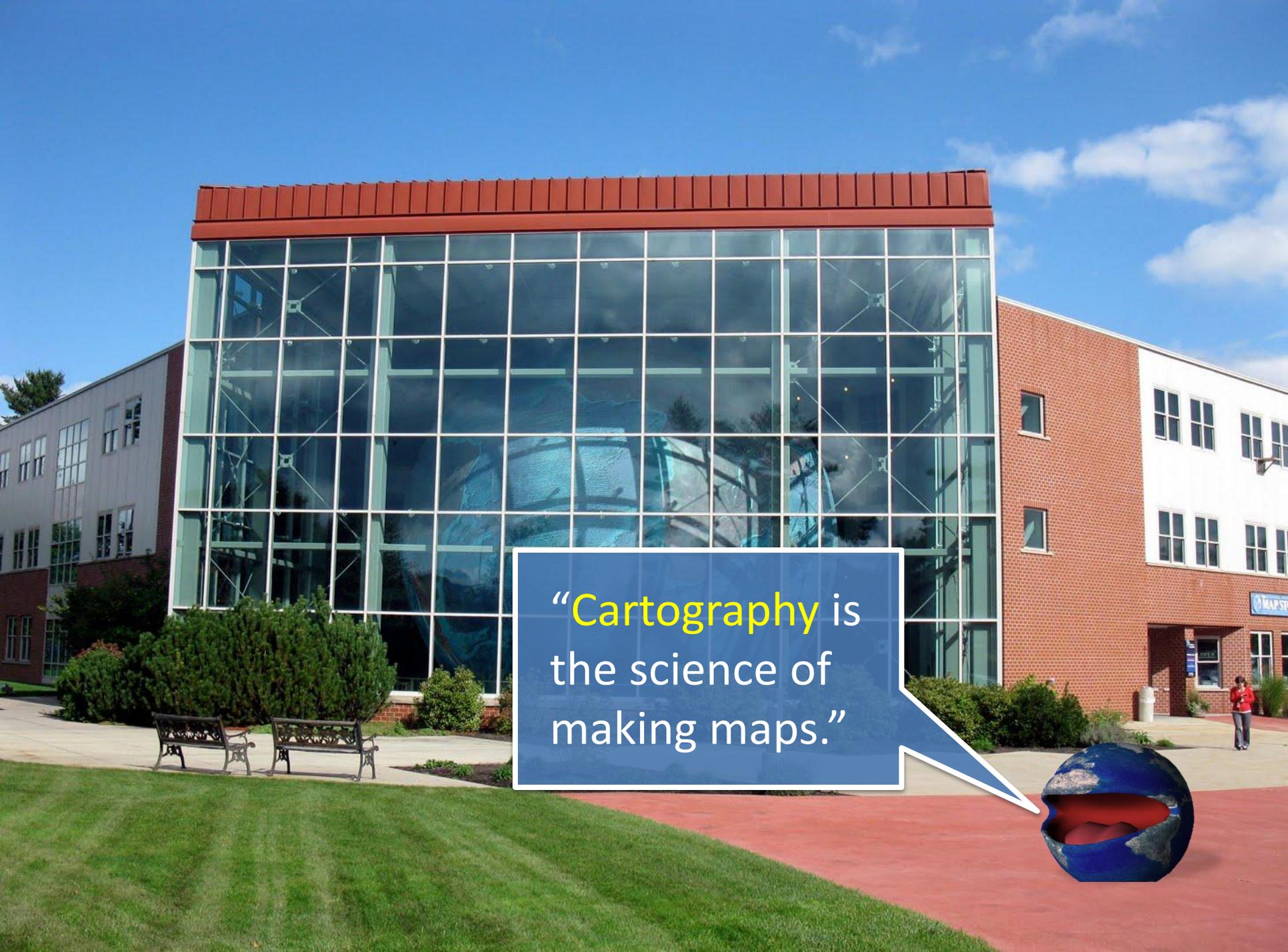
A

Geographers Tools



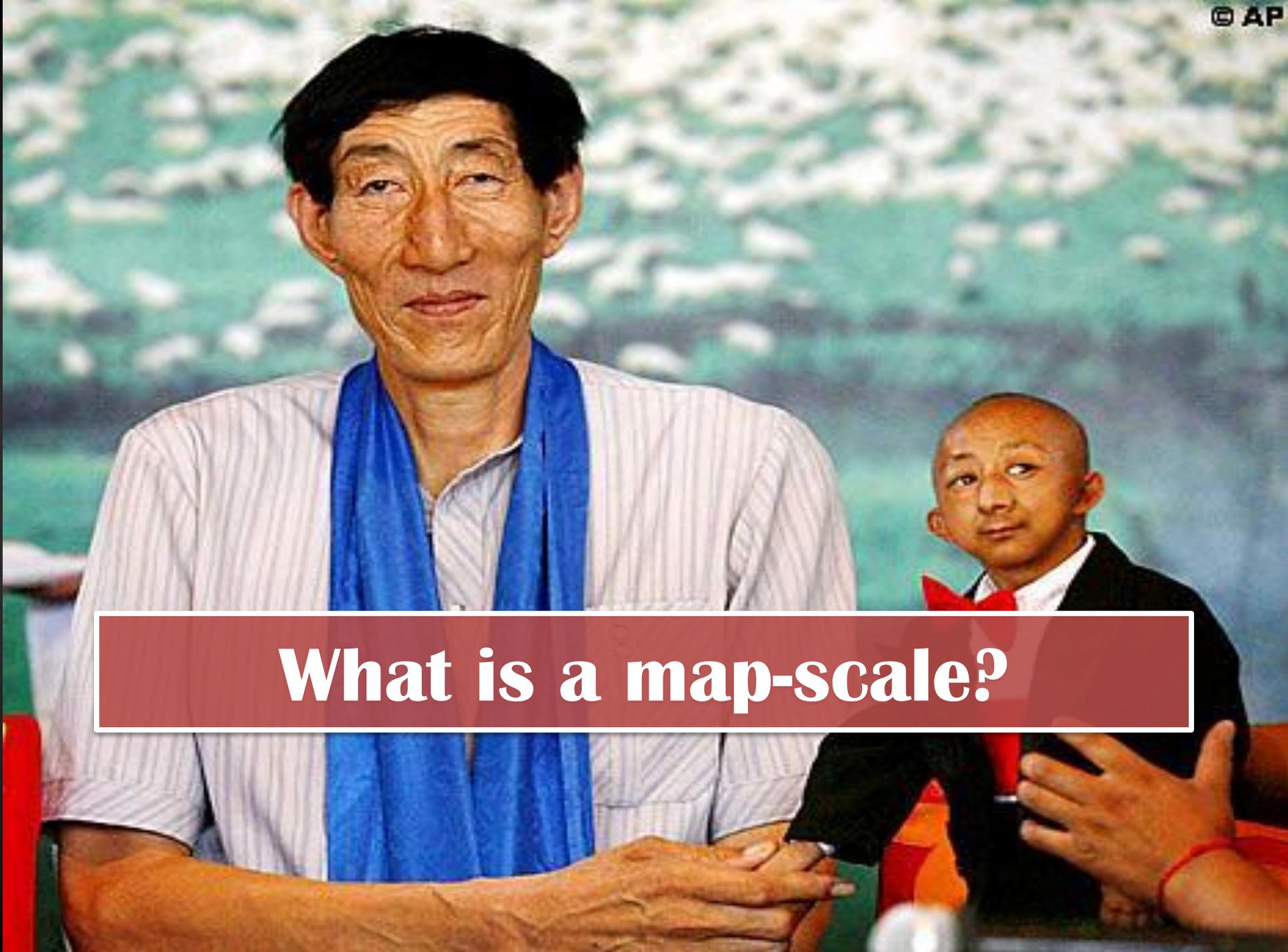


What is cartography?



“**Cartography** is the science of making maps.”





What is a map-scale?



“A **map-scale** shows the relationship of a feature’s size on a map to its actual size on Earth.”

1:24,000

Ratio or Fraction

1/100

Map Scale

Graphic Scale

Written scale

0 |-----| 100km

1 inch equals one mile

A photograph of a desert landscape with large, rounded rock formations in the foreground and a clear blue sky. A red rectangular box with a white border is superimposed over the center of the image, containing the text "What is projection?".

What is projection?

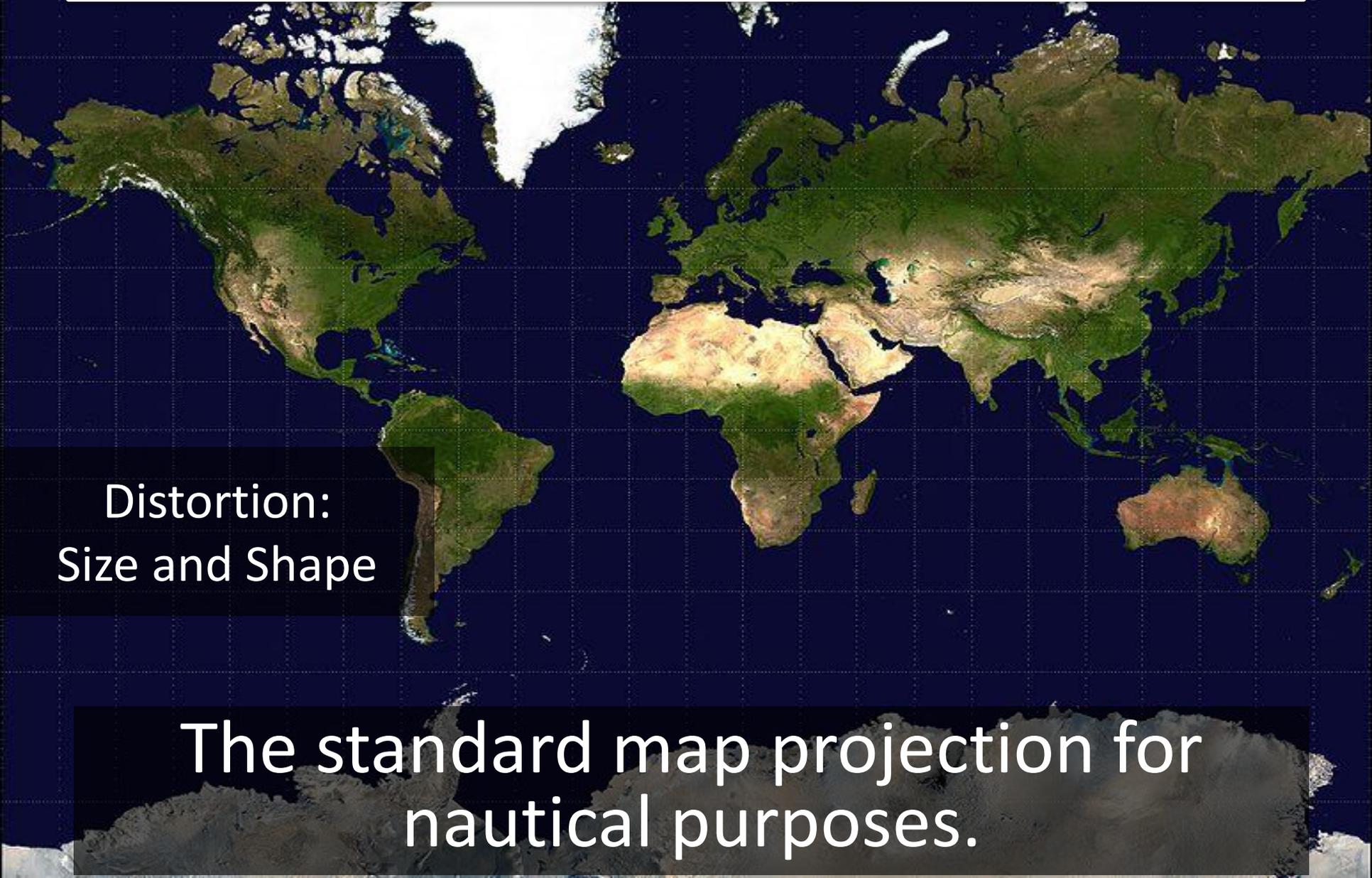
“**Projection** is the scientific method of transferring location on Earth’s surface to a flat map.”



Mercator Projection

**Distortion:
Size and Shape**

**The standard map projection for
nautical purposes.**



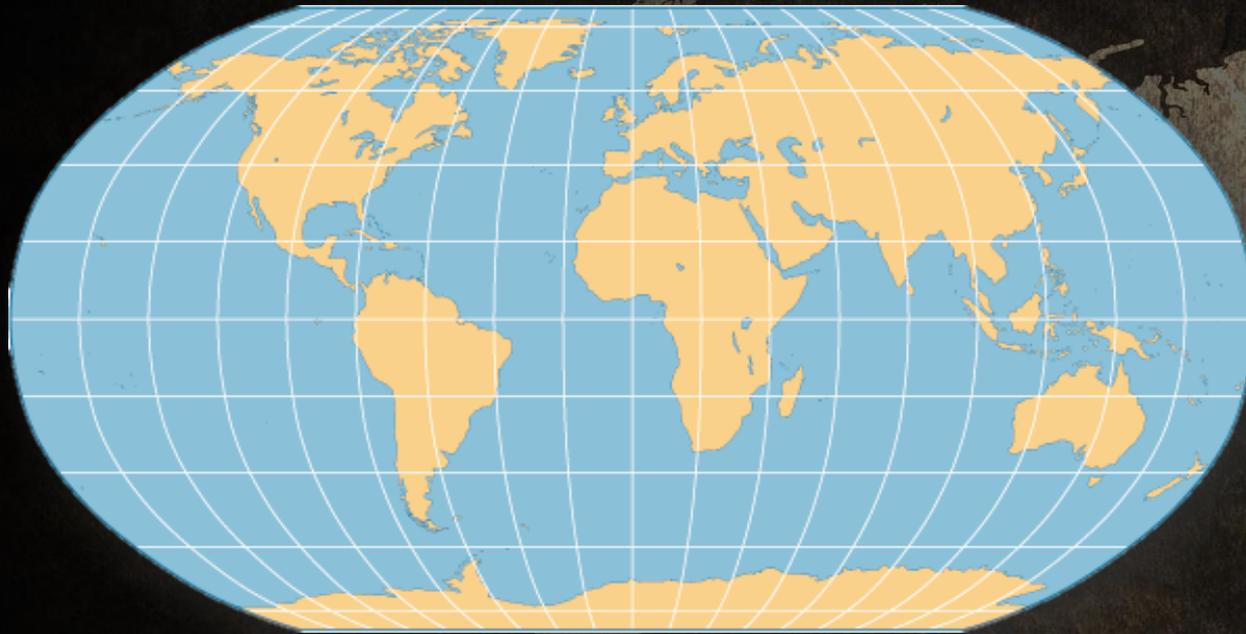
Mollweide Projection



**Distortion:
Shape and Angle**

Primarily used where accurate representation of area takes precedence over shape

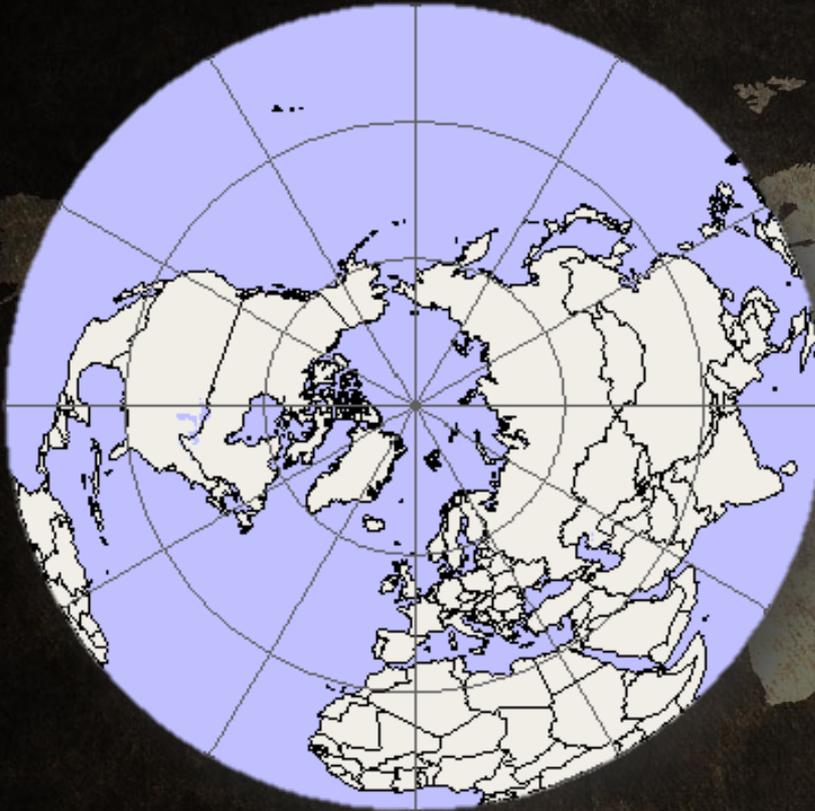
Robinson Projection



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.

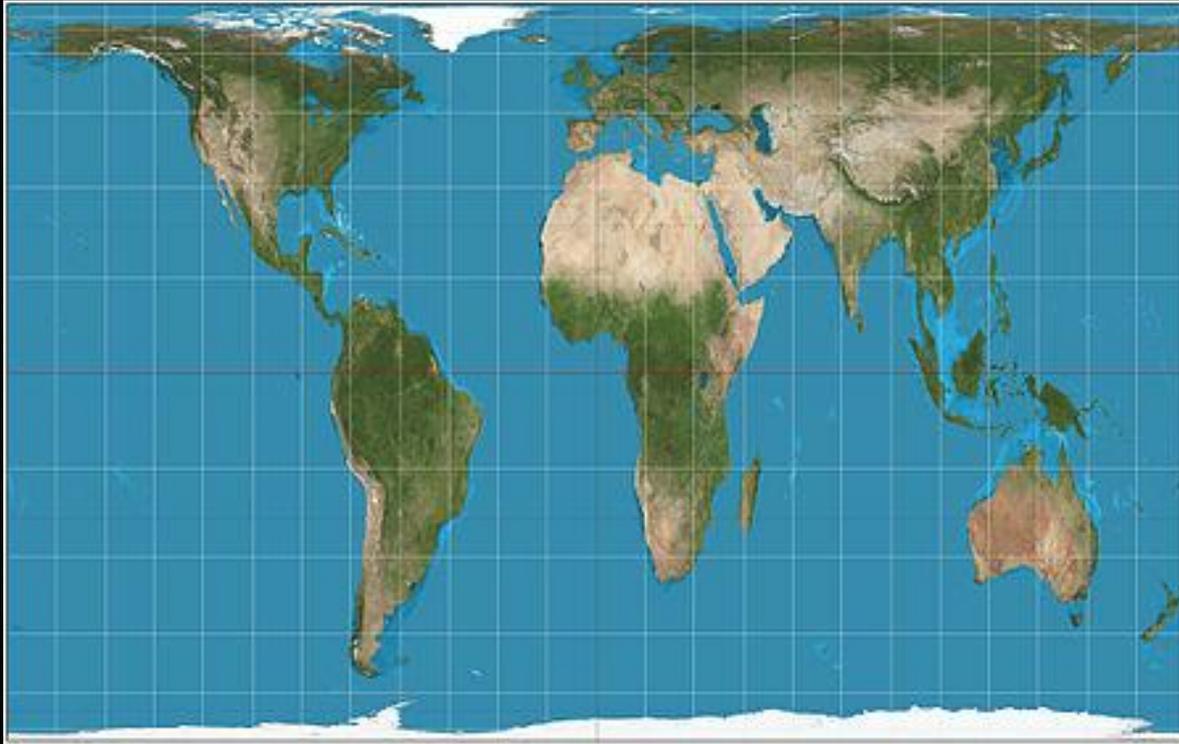
Used when drawing Polar maps.

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 photograph of St. Paul's Cathedral in London, featuring its iconic dome and classical portico. A red banner with white text is overlaid across the center of the image. In the foreground, a statue stands on a pedestal in the middle of a green lawn.

Longitude vs. Latitude

Longitude



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

Latitude



0° Latitude is the equator.

90° north latitude is the north pole.

90° south latitude is the south pole.