A 60 SECOND GUIDE TO . . .

Map Projections

Royal Geographical Society with IBG
www.rgs.org

Definition

A map projection is a systematic method of representing the globe on a 2D surface.

Problems with map projections

It is impossible to accurately represent the 3D globe on a 2D surface: even in the most accurate projections part of the Earth's surface have to be distorted in order to allow the continents and the oceans to 'fit'. It is up to the cartographer to decide, through the projections they use, which parts of the Earth should receive most and least distortion and this decision usually depends on the purpose of the map and what the cartographer is trying to show.

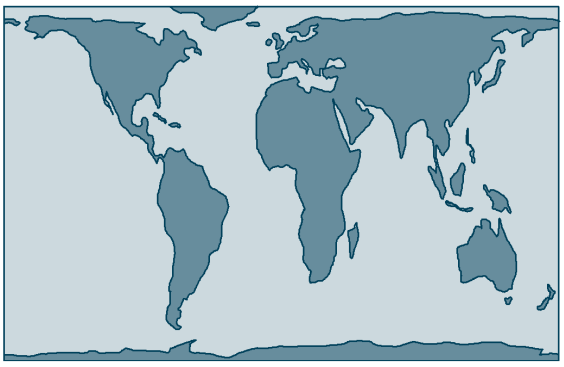
Four examples of different map projections:

Mercator Projection

The Mercator Projection is a cylindrical projection (can be made into a cylinder to represent the position of the continents) which significantly increases the size of northerly and southerly continents compared to Equatorial land masses.

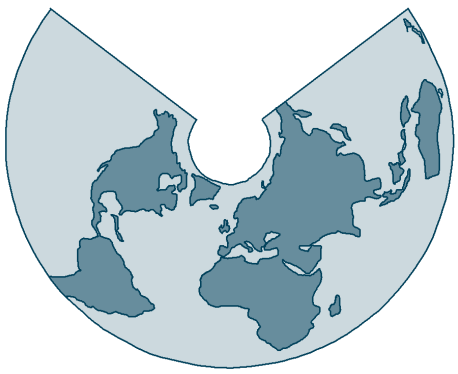
Gall-Peters Projection

The Gall-Peters Projection is a cylindrical projection which represents the relative size of the land masses from the poles to the Equator more accurately , though it significantly distorts their shape.



Albers Projection

The Albers Projection is a conical projection (can be made into a cone and represent the position of the continents). It represents the land area of the continents more equally, though distorts their shape.



Cahill Projection

The Cahill Projection is a polyhedral projection (where the surface is divided into equal segments). The smaller and more numerous the segments, the more accurate the map is in showing the relative size and correct shapes of the continents; though their relative positions are distorted .