

## **Additional Material for Panels in Marble**

### **Mercator view**

The Mercator projection is a cylindrical map projection presented by the Flemish geographer and cartographer Gerardus Mercator in 1569. It became the standard map projection for nautical navigation because of its ability to represent lines of constant course, known as rhumb lines or loxodromes, as straight segments that conserve the angles with the meridians. The meridians are equally spaced parallel vertical lines. Although the linear scale is equal in all directions around any point, thus preserving the angles and the shapes of small objects (making it a conformal map projection), the Mercator projection distorts the size of objects as the latitude increases from the Equator to the poles, where the scale becomes infinite. So, for example, landmasses such as Greenland and Antarctica appear much larger than they actually are, relative to landmasses near the equator such as Central Africa.

### **Flat view**

Overall layout of all Continents brought into one plane. Here latitude and longitudes are drawn as straight lines. Every point of this kind of maps are viewed from directly overhead. Africa always ends up appearing far smaller than it actually is, while other regions including North America are shown to be much bigger than they really are.

### **Gnomic view**

Gnomonic projection is a non conformal map projection, obtained projecting points on the surface of sphere from a sphere's centre to point in a plane. That is tangent to a point. In a gnomonic projection, Great circles are mapped to straight lines.

### **Stereographic view**

Stereographic projection is a particular mapping that projects a sphere on to a plane. Stereographic view projects points on a spheroid directly to the plane. All meridians and parallels are shown as circular arcs or straight lines. Directions are accurate from the center. Local angles are accurate everywhere.

## **Lambert azimuthal equal area view**

The Lambert azimuthal equal area view is a particular mapping from a sphere to a disk (that is, a region bounded by a circle). It accurately represents area in all regions of the sphere, but it does not accurately represent angles. The centre is  $0^{\circ}\text{N } 0^{\circ}\text{E}$ . The antipode is  $0^{\circ}\text{N } 180^{\circ}\text{E}$ , ocean around that point appears along the entire boundary.

## **Azimuthal equidistant view**

In Azimuthal equidistant view all points on the map are at proportionally correct distances from the centre point and all points on the map are at the correct direction from the centre point.

Perspective globe view. When camera is aimed towards centre of the earth, the resulting projection is called a Perspective Globe view.

When the earth is photographed from space, the camera records the view as a perspective projection.