

Viewpoints – the world in perspective

www.worldmapgenerator.com/

Julia Mia Stirnemann*

* Bern University of the Arts, Schweiz

1. From pole to pole

In spherical geometry poles are opposite points on a globe, which can be linked by any first great circle that comes along. Geography defines poles as intersections on a rotational axis whereby the route from pole to pole cuts along the meridians. The definition or positioning of poles on the globe happens by logic sequel. However, the placing of poles on a surface area, i.e. a world map, cannot always be determined unequivocally. In the following the question of setting poles in world maps and the distance between poles will be examined and depicted by means of the newly developed software 'Ansichtssache(n)'.

2. From sphere to surface area, from globe to world map

Points of reference in world maps relate to the format in which they are depicted, i.e. their silhouettes and aspect ratio. The position of opposing points in a two-dimensional space does not only entail limited possibilities but a plethora of depiction options.

Because of the format of conventional world maps poles are always displayed in the upper and lower picture margin, as in Arctic Zone and Antarctica (*Figure 1a, b*). By reviewing this conventional image the poles do not necessarily have to be situated on the edge of the world and neither has the spectrum in between to rest in the middle of the illustration (*Figure 2a, b*). Furthermore, with a shift of the poles towards the center of the image the question of periphery or rather the center of the world will be reconsidered once more.

However, not only the positioning of the poles in conventional world maps needs to be thought over but also the connecting lines, i.e. the lengths from pole to pole. The force of expression of a line along a great circle (which is

intersecting the poles) is changed by an oblique depiction. For certain locations the route is no longer depicted as two lengths from top to bottom of a map but as one line from pole to pole. With this deformation of the meridian the curvature of the earth is visually suggested whereby the world map references the globe. Relations to distance are revealed unconventionally – the accuracy to shapes of landmasses, especially the one of Antarctica, is addressed (*Figure 3a, c*).

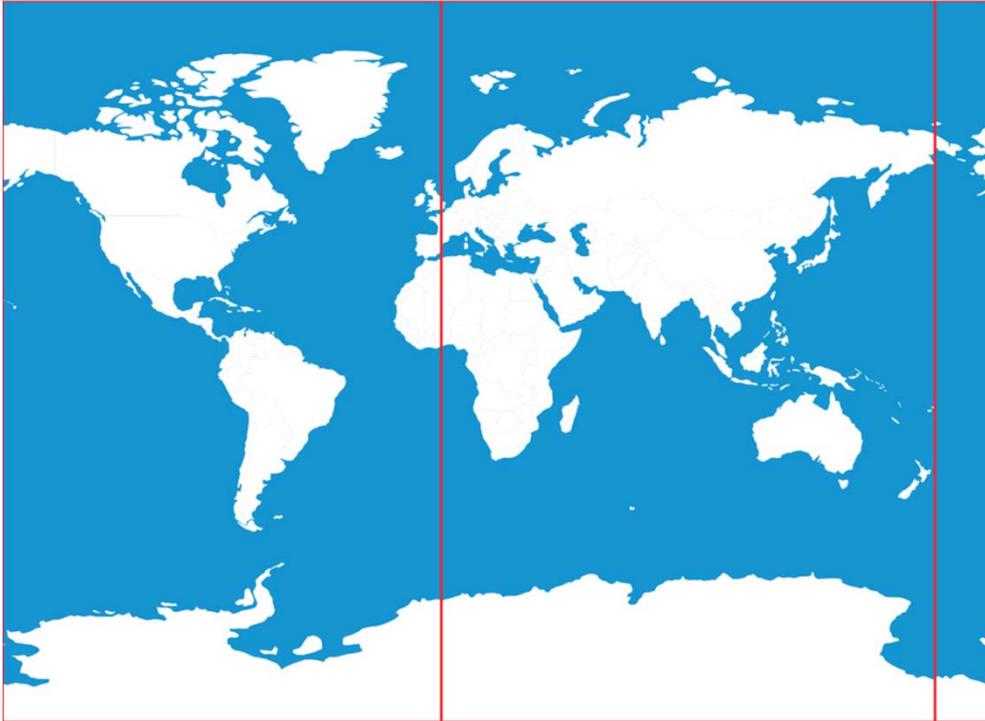


Figure 1a. Miller Projection. From Pole to pole depicted through the prime meridian.

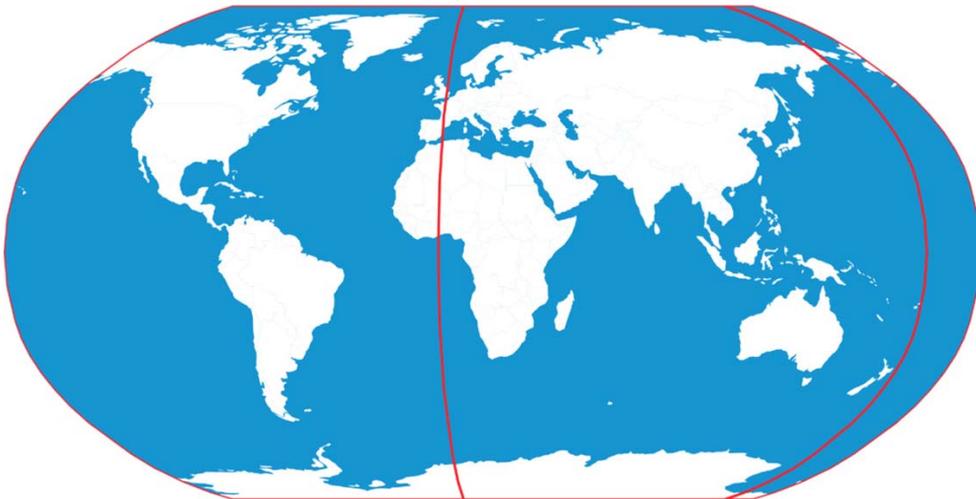


Figure 1b. Robinson Projection. From Pole to pole depicted through the prime meridian.

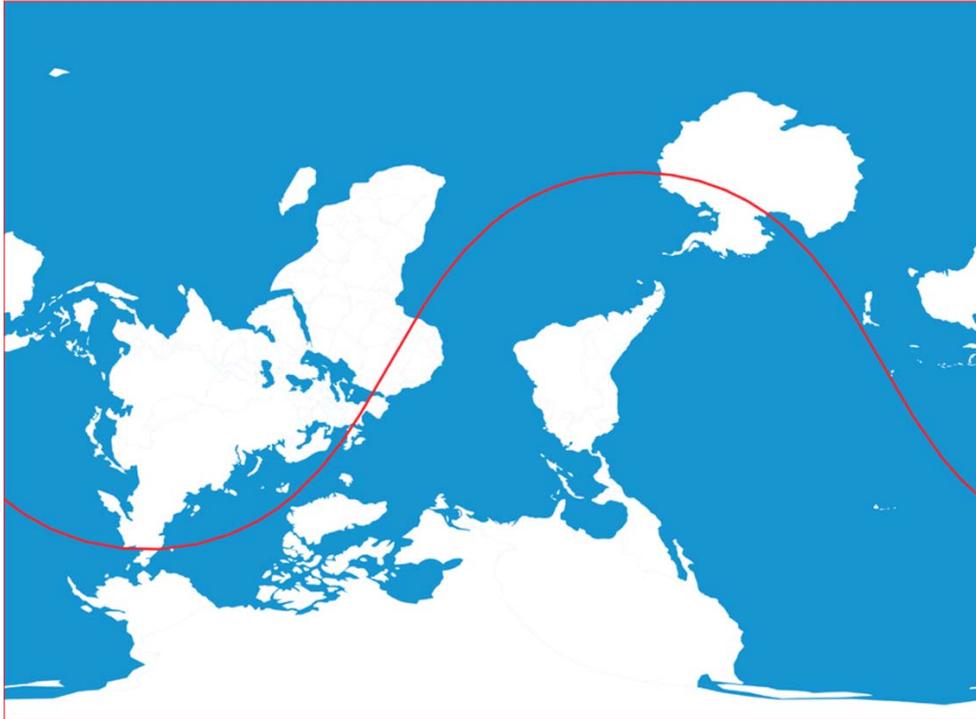


Figure 2a. Miller Projection. From Pole to pole depicted through the prime meridian.



Figure 2b. Robinson Projection. From Pole to pole depicted through the prime meridian.

3. From center to periphery, from world map to world view

The developed software gives options to generate world maps with customized geographic centers isolated from the choice of projection. Through many options of interaction one is not committed to one model only, new 'globe-world map-models' can be created repetitively. Thus one is not focused on a static world map but keeps on thinking continuously about the position of the poles or the lines, which run from pole to pole. These oblique world maps are neither absorbed by a central hegemonic power nor by a peripheral residual. They rather visualize a polycentric principle that represents the perspectives of the contemporary global world. When reshaping the earth's surface for another depiction of the world map a consideration of important factors as the sociological, political, and economical one is required. The subjective point of view, which also relates to the world view—is taken when examining a world map. This in turn determines the perspective on poles, the perspective on north and south as well as on top and bottom.

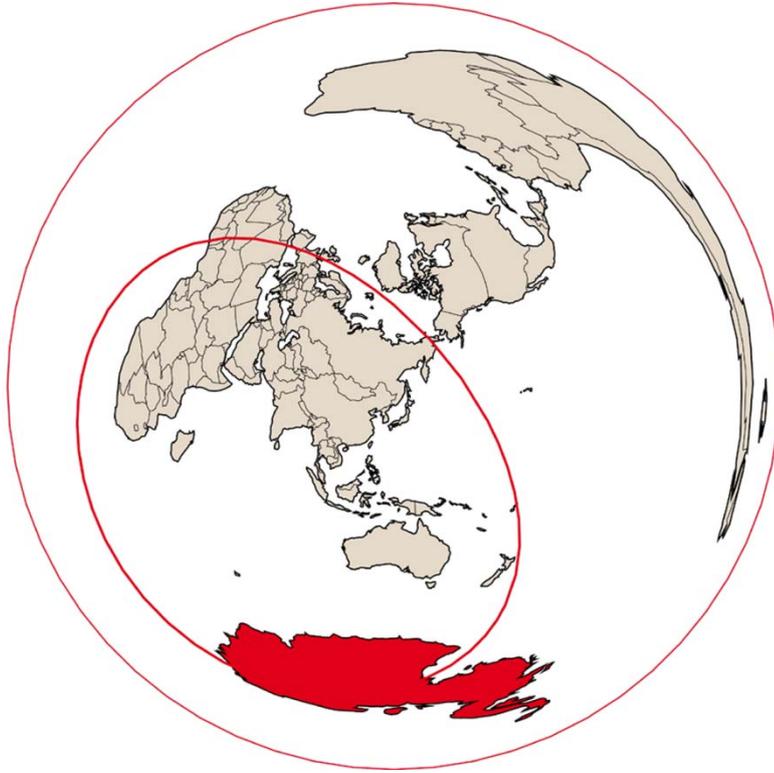


Figure 3a. Azimuthal Equidistant. Antarctica – accurate to shape.



Figure 3b. Merkatorprojektion. Antarctica – accurate to shape.

References

- Monmonier M (1991) Centering a Map on the Point of Interest. Matching the Map Projection to the need. Robinson, Arthur H. und Snyder, John P., Committee on Map Projections: S. 10 – 11.
- Panofsky E (1927) Die Perspektive als „Symbolische Form“. Leipzig, Teubner
- Robinson AH (2010) The look of maps: An examination of cartographic design. Redlands, Calif., ESRI Press
- Slocum TA (2005) Thematic Cartography and Geographic Visualization. Upper Saddle River, Pearson Education, Inc

- Snyder JP, Voxland PM (1989) An album of map projections. Washington, DC, United States Government Printing Office
- Monmonier M (1996) How to lie with maps. Chicago and London, The University of Chicago Press
- Wood D, Fels J, Krygier J (2010) Rethinking the Power of Maps. New York, London, The Guilford Press
- Cartwright W (2006) Maps on the Web. In: Maps and the internet. Peterson, Michael M. (Hrsg.). Amsterdam, ICA/Elsevier: S. 35 – 55
- Crampton JW (2010) Mapping a critical introduction to cartography and GIS. Malden, Mass., Wiley-Blackwell