

Map-reader preference for world map projections

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Over a period of more than 2,000 years, cartographers have developed hundreds of projections for world maps. This plethora includes projections with straight or curved parallels, projections with poles represented as points or lines, and projections with different distortion characteristics. According to John P. Snyder's selection guidelines (in *Map Projections: A Working Manual, 1987*), world map projections are chosen by their projection property (conformal, equivalent, equidistant, straight rhumb lines, or compromise distortion). Snyder is not specific in his recommendations for world maps, and leaves cartographers with considerable freedom in the selection process. The cartographers' personal aesthetic preference is certainly a major selection criterion. However, very little is known about map projection preferences of map-readers. In 1993, Robert J. Werner published the only user study exploring map-readers' preferences for world map projections (*A survey of preference among nine equator-centered map projections. Cartography and Geographic Information Systems, 20(1), 31-39, 1993*). Werner's results show that the most preferred are uninterrupted pseudocylindrical projections. They are followed by interrupted projections, and the least favored projections are those with a rectangular shape. To confirm and extend Werner's findings, another user study among map-readers is conducted using Amazon's Mechanical Turk crowdsourcing service. Participants rank a set of world map projections, including the so far unpublished Natural Earth II projection. The study also tests the influence of the ubiquitous Web Mercator projection. The goal of this study is to help cartographers base the selection of world map projections on the aesthetic preferences of map-readers, and thereby mitigate the subjective component in Snyder's selection guidelines.

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