~ Peters Projection ~

A critical analysis of Arno Peters Atlas and a defense of the Mercator projection

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Abstract

The goal of our paper is to analyze the presumed accuracies of the Arno Peters projection and to defend the Mercator projection. We will start by explaining the original purpose of the Mercator projection, designed with rhumb lines in order to assist sailors in navigation, and then continue to explain the history of the Peters projection as well as the intentions aimed at improving the political inequality presented in the Mercator. We then elaborate on how the Peters projection’s political inaccuracies differ from its scientific inaccuracies in order to support how the Mercator was not a synthesis of eurocentricity and racist ideology, but instead an innovative means for naval navigation.

In 1943 the New York Times published a critical analysis of geographical projections, noting that “the time has come to discard the Mercator projection for something that represents continents and directions less deceptively . . . We cannot forever mislead children and even college students with grossly inaccurate pictures of the world.”¹ This scathing article by a popular and well-circulated newspaper serves as an example of one of the numerous critiques of the Mercator projection that had begun to surface in the 19th and 20th centuries. Critics sought a solution to the ‘inaccuracies’ and ‘distortions’ they claimed were prevalent in the Mercator model, the universally utilized projection that adorns the walls and tables of classrooms and political offices in the present day. Their ‘solution’ finally came in May of 1973 when the German historian

¹ John P. Snyder, *Flattening the Earth: Two Thousand Years of Map Projections* (Chicago and London: The University of Chicago Press, 1993), pg. 157
Arno Peters unveiled a projection that offered a so called ‘equal representation’ of the world. The Peters projection, however, is in no way an accurate projection of the world’s landmasses and oceans, and the arguments aimed at derailing Mercator’s model by labeling it as racist and Eurocentric are not valid. This paper seeks to defend the Mercator projection by analyzing and debunking its contemporary criticism and offering a critical analysis of the Peters projection and the issues that surround it.

Since its conception by Gerard Mercator in 1569, the Mercator projection has emerged as one of the most popular forms of cartographic projection, rooting itself in the cultural hegemony of Europe and the world for over 400 years. The Mercator projection was one of the first modern maps of Europe that systematically embraced the information present in Ptolemy’s *Geography*. Gerard Mercator’s primary objective in creating his famous projection was to synthesize a map that could be used for navigation. He incorporated the use of ‘rhumb lines,’ and progressively increased the separation of parallels. On Mercator’s projection, the parallels near the equator are fairly close together, while those closer to the poles are further apart. Thus, landmasses become disproportionately larger to fill the greater span between parallels closer to the poles. The immediate noticeable feature of Mercator’s projection is that Europe covered twice its true area and Africa appeared reduced in size compared with contemporary maps. Due to the much larger size of European countries, the map has been castigated as a symbol of

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4 Ibid.
Eurocentric imperial domination over the majority of the globe. Critics analyze the projection as depicting Europe at its center, while simultaneously disparaging the size of Asia, Africa, and the Americas. In the postcolonial world, Mercator’s projection has come under significant analysis.

In response to the criticism of the Mercator projection, Arno Peters, in May of 1973, discussed his new version of a world map that would display the continents’ sizes more faithfully according to their areas on Earth’s surface. This differed from the Mercator projection in that the sizes of the continents were not expanded relative to their distance from the equator. The changes made that can be seen in the Peters projection include having Africa in the center rather than Europe and relocating the prime meridian from Greenwich to the current date line in the Pacific Ocean. The major aim of this map was to modify and improve the post-imperialist world-view since the Mercator projection gained publicity for maintaining the “ideology of continued global exploitation of the Third World by the industrial nations”. It is no surprise that OXFAM, the British Council of Churches, Action Aid, the Papacy, and a series of other aid and support organizations championed the Peters projection. Surprisingly, the United Nations was one of the most passionate advocates of the Peters projection due to its political implications. Specifically, educators have been concerned regarding how the Mercator’s proportions would change the way children in schools view the world and perceive

\[\text{Ibid., pg. 3}\]
\[\text{Dhananjayan Sriskandarajah, ”Long Underwear on a Line? The Peters Projection and Thirty Years of Carto-Controversy,” Geography 88, no. 3 (July., 2003)., pg 238.}\]
\[\text{Brotton, A History of the World in 12 Maps, pg. 380}\]
\[\text{Ibid.}\]
political power. In an article concerning the value of the Peters Projection map, the map has been accused by a student of Eric Gutsetein, an eighth grade math teacher, of being “some sort of propaganda with false information”. More educators have used the Peters projection as a tool to engage students to question their own perceptions of the world and to learn more about racism and politics.

Despite the pomp and circumstance that Arno Peters received for his ‘revolutionary’ map by those ignorant to cartographic methodology and studies, the scholarly community was callous and cold to the appearance of the Peters rejection, and adamantly attacked and disparaged the projection and its political aims. The prominent British cartographer H. A. G. Lewis, while reviewing The New Cartography, wrote that “having read this book many times in German and in English, I still marvel that the author, any author, could write such nonsense.” Another accredited cartographer, Norman Pye, scathingly attacked Peters Atlas, calling it “absurd,” and asserting that “only the cartographically naive will be deceived and fail to be exasperated by the pretentious and misleading claims made for the atlas by the author.” Even the German Cartographical Society felt compelled to condemn Arno Peters projection, stating, “the Peters map conveys a distorted view of the world. It is by no means a modern map and completely fails to cover the manifold global, economic and political relationships of our times!”

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10 Brotton, A History of the World in 12 Maps, pg. 380
11 Ibid.
12 Ibid., pg. 381
to be dabbling in cartography as a historian who studied American film. The German Cartographical Society also denounced him for his ignorance of mathematical cartography and questioned his true objectivity in publishing this atlas. Some saw him as an exploiter whose skillful marketing of the map and presentation to the cartographically ignorant public was an attempt at sheer economic gain.\(^\text{13}\)

The development of the Peters projection surrounded the assumption that the Mercator projection embodied a Eurocentric vision of the world. Therefore, the Peters map seems to have used the most scientifically accurate method of displaying the area of the developing countries proportionally to each other. It was believed that creating the most ‘accurate’ map would erase the discrimination and misrepresentation of nations and would portray a “realization of reality”.\(^\text{14}\) In an article about the controversy of this projection, Dhananjayan Sriskandarajah states that this ‘progressive’ type of cartography “seeks to create a value-free similitude of reality” and that it assumes that the scientific production of maps can be completely separated and distinguished from the non-scientific consumption and value.\(^\text{15}\) In this case, the Peters projection is supposed to be seen as the most valuable projection because of the newer scientific process of sizing the countries based on their area on the globe. All of the attention and political correctness given to the Peters projection relies on its accuracy at measuring these sizes, and not enough thought is given to how “cartographers may have (mis)understood the ‘politics’

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\(^{13}\) Ibid.


\(^{15}\) Ibid.
More focus should be given to the fact that the projection is an entirely new world picture that may have “created a recolonization of the Third World built on a new set of powerful interests-those of Cold War development.” In an effort to portray the Third World as fairly as possible, the Peter’s projection actually continued to use Western ideologies to determine what would be a fair representation of those countries. By subjectively analyzing the projection, it can be determined that it may not be as accurate a depiction of the world as previously thought.

Despite the glut of criticism that have used Gerard Mercator as a strawman and systematically vilified and demonized both him and his projection, it is vital to underline that his projection was first and foremost a tool to be used by navigators, not a map attempting to depict European empires and superiority. In fact, Mercator’s projection is particularly bereft of any sort of imperial patronage, religious affiliations or political boundaries, unlike the sheer majority of maps produced before Mercator. The Peters projection map has been approached as a solution to the limited Eurocentricity of the Mercator because of its larger representation of the Third World. However, the Peters projection must be evaluated separately from its scientific accuracy. In doing so, it can be determined that the Peters map is not as powerful of a representation of the world as many think.

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16 Ibid.
[Figure 1]

Peters projection displayed in green on the map with a black outline overlay of the Mercator projection


References


