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Homework 3 Write up

After reading about the articles I learned a lot about the different projection systems, how they evolved and how they are used in modern applications today. I was surprised to hear how many projection systems exist. Each projection system seems to have their particular advantage depending on what the person wants to show or use the map with. I was also surprised to read about how accurate this old maps had to be and even the distortion of the paper with humidity would case enough distortion to make the map inaccurate.

Nowadays people take this information for granted but for the longest time some thing that seems as simple as longitude was not readily accessible. It took creating accurate clocks to precisely measure longitude especially since it is all relative. Another thing that surprised me is how much the map projections can influence people. For most people, they see the Mercator projection of the world which distorts the area of a lot of the countries. Therefore, many people would say that Greenland is larger than Africa or south America just because of that map projection. If people saw a more equal-area maps, they would a much larger understanding on how things actually are.

Now with programming, it makes creating and analyzing different map projections much easier. There are many packages, like in python that are used to generate and display different projections. These projections can be used to manipulate or show data. The packages offer a variety of projection types to allow the user to display the data in the project type they see fit to represent their data. To aid in calculating position, many conversion functions and mapping systems are used. For example, the UTM system was developed by NATO to allow more accurate mapping and calculations. UTM allows for easier understanding on distances because it maps out to a metric based unit. A shift by 5 is a shift by 5 meters which makes things easier to understand.

As the author in the UTM article mentioned, the UTM based system was created by NATO, which is a military organization. It seems like a lot of these systems were started for military means to aid in navigation and precision. For example, the Spanish and the English wanted to know longitude so they can maneuver their Galleons and aid their conquest of foreign territories. For them, the country that could be navigate would rule the sea.