

Background to the Gazetteer conference, December 2006, by W. Tobler

Different ways of refereeing to geographic location can be considered aliases of each other. They differ in many attributes, such as accuracy and resolution. The main types refer either to point locations, bounded areas or routes, or can be identified by attributes.

Inter-translation between these aliases raises several problems. Several of these are discussed in my power point presentation at

<http://geog.ucsb.edu/~tobler/presentations/> “Geographic location and map projections”

also see

<http://www.csiss.org/classics/content/86> “Geocoding experiment by Gould and Tobler.

As one example the CIESIN global-population-of-the-world project

<http://sedac.ciesin.columbia.edu/gpw>

reports on 376,499 populated areas with a global average of 46 km resolution (resolution variance not stated), containing an average of 144,000 people. Here the average resolution is defined, in km, by the square root of the country area divided by the number of units. For each of these they give a centroid point but also the polygon description, both of these in the form of latitude and longitude coordinates. They have comparable information for 24,135 urban extents and 70,558 settlement points at a resolution of 30 arc seconds. The documents available from CIESIN describe this information in more detail and discuss some of the problems associated with this type of information.