Geospatial Ontology – ISAO 2016

Further reading - "Ontology of Geographical Objects"

The suggested readings include three papers by Barry Smith and David Mark, leading experts in the field ("Ontology and Geographical Kinds", "On Drawing Lines on a Map", "Do Mountains Exist?"). Then read the papers from Robinson ("Reexamining fiat, bona fide, and force dynamic boundaries for geopolitical entities") and from Galton ("On the Ontological Status of Geographical Boundaries"). Both Robison and Galton present a critical vision of Smith's division between *fiat* and *bona fide* objects. The paper from Fonseca et al. presents a vision of a geographical information system where ontological aspects would be considered in its design.

After reading the papers, you are invited to consider the following questions:

- What is a geographical object, considering the different definitions (Smith, Galton) and also the topological operations discussed in the previous assignment?
- What are the main differences between the views of Smith and Galton regarding geographical objects?
- What are the main criticisms by Robison against Smith's theory of *fiat* and *bona* fide objects?
- Do mountains exist?
- Consider the TED talk about differences between US and Japanese addresses (www.ted.com/talks/derek_sivers_weird_or_just_different?language=en). How do Smith and Galton deal with "blocks", "roads" and "addresses"?
- What about networks, such as the London Underground and the internet? Does Smith's theory of fiat and bona fide objects apply to them? What counts as on object in a network?