There can be disagreement, at times passionate, within the language community over what the 'true' name of a place is—or, even when the name is agreed, the 'true' location of the place.

17.4.3 Extensions of placenames

There are other complex lexemes incorporating a placename: such as *Boston bun*, *Antarctic tern*. These are expected in languages which have spread considerably from their original territory, but are not nearly so common in 'small' languages which are not languages of wider communication. In some Australian languages, the same word can be a placename and the term for a commodity (such as an ochre) sourced from that place—rather like the English word *china* (*chinaware* crockery), from *China*.

17.5 Data Storage and Presentation

Information collected on placenames can be stored in data files organized like a dictionary. Indeed, each placename can be an entry in the master dictionary file for the language under study. Alternatively, the placenames can be maintained in a dictionary file of their own, effectively a digital gazetteer. A placename entry has fields in common with those of other lexemes (spelling, pronunciation, part of speech, irregular morphology, variant forms, denotation, synonyms, cross-references, etymology), and some special additional fields (location coordinates, corresponding name in other languages). Whether to maintain the placename information in the master dictionary file or in a separate gazetteer is a decision for each project. Relevant considerations would include the extent to which placenames derive from ordinary vocabulary; if quite a lot of placenames derive \$\(\psi\) from other vocabulary items, there can be value in explicitly showing the relationship by way of composite dictionary entries.

If a placenames data file includes geographic coordinates (typically latitude and longitude) for each site, then a Keyhole Markup Language (KML) file can be derived. KML is a file format and associated XML (Extensible Markup Language) specification, which allows interchange of locational data between various software, and in particular allows display by Google Earth. The KML file format also allows the storage of other attributes along with each location, and also allows storage of celestial data (such as stars, constellations, planets). For linguistic research, however, KML would not be an ideal master format, as it is primarily about locations, not about names (as words).

Toponymic data can be combined with other spatial data in a GIS application. Usually this is achieved by inclusion of a placenames layer. In multimedia GIS, each name may be linked to images, sound files, etc. In recent years there have emerged applications tailored for Third World situations, under the headings of Public Participation GIS (PPGIS) and Participatory 3D Modelling (P3DM), and these could offer a framework for detailed research on toponymy. See Chapin, Lamb, and Threlkeld (2005) and the extensive references.

A range of accessible materials can be produced from placename documentation. Maps and gazetteers are obvious and useful reference works for community members and schools, as well as for informing a wider public about local nomenclature. An encyclopedic gazetteer based around geographic knowledge and placename networks is another rewarding way of presenting the information and its wider links. An excellent example is *Shem Pete's Alaska* (Kari, Fall, and Shem Pete 2003), which documents 973 named places in the Upper Cook Inlet area, a brilliant representation and evocation of Dena'ina and Ahtna knowledge. Alongside dictionary-style presentation, graphic representation employing expert cartography enhances accessibility.