Culture and Technology Meeting in Geographical Names

Dr. Francis Harvey
(Associate Professor Department of Geography
University of Minnesota 414 Social Sciences
Minneapolis, MN 55455 USA)

Abstract

Names, and most especially geographic names, carry multiple cultural connotations. This paper examines how geographic names necessarily reflect certain underlying semantic field of meaning arising in different cultures. Current technology offers unique opportunities to facilitate the use of multiple names when standardization is undesirable or impossible. Use of multiple names, localized names, and roll-overs can help facilitate the culturally aware naming of geographic features in paper and digital cartographic products. This paper looks these issues based on examples of geographic names from the Baltic Sea in North-Eastern Europe.

Capabilities of Technology

The technology of geographic information systems (GIS) seems to make the assignment of multiple names to the same feature feasible. Does this make it possible to more readily use different names in print and on-line cartographic products? Looking at past and present cartographic representations of the Baltic Sea, this paper looks at past multi-lingual usage of names, present uses, and potentials for the future. It suggests that until multi-lingual communication needs increase, the technological possibilities will be limited to specific niche products.

The idea pursued in this paper is that modern GIS technology offers possibilities to assign multiple names to the same geographic feature. Vladimir Tikunov discusses the issues and importance of using multiple geographic names in his 2004 paper presented at the Paris conference on the International Naming of the Seas. Since geographic names carry multiple meanings for a variety of cultures, the use of geographic endonyms and geographic exonymes persists as key reference points for the understanding of each culture's place in the world and its history. Standardization can accomplish much, yet attempts to dictate a single reference for places will be understood as an attempt to circumscribe things and events from a culture's past and present.

This paper suggests that a fruitful didactic strategy for the naming of seas with complicate pasts may be found in the use of GIS to facilitate the placement and use of multiple endonyms and exonyms, e.g., the Baltic Sea, also know as the East Sea.

Cultural Issues: Another "East Sea"

The Baltic Sea has also been called the East Sea in English and other languages at least since the early middle ages. The multiple names pose an interesting case for examining the cultural imbeddedness of multiple names as cases for technological solutions. The Baltic Sea, located in north-eastern Europe, is an example of a maritime water body known by different names, which can be grouped into either East Sea or Baltic Sea categories, with only one exception: the sea is called the West Sea in Estonian. Although the similarities can be related to its etymological roots, the etymological roots are not as clear cut as discussed in Kadmon's paper last year on the Dead Sea (Kadmon 2004). The Baltic Sea or East Sea endonyms and exonyms are used interchangeably in this region and in neighboring countries. The East Sea names endonyms are used in Danish (Østersøen), German (Ostsee), Norwegian (Østersjøen), and Swedish (Östersjön). Baltic sea family of names are used in Polish (Morze Bałtyckie or Bałtyk), Kashubian (Bôłt), Russian (Baltiyskoye Morye (Балтийское море), Latvian (Baltijas jūra), and Lithuanian (Baltijos jūra). Finnish, a Balto-Fennic language has calqued the Swedish term as Itämeri. Finally, and the only divergence reflecting the geographical orientation of the sea, Estonians name the sea the West Sea (*Läänemeri*) (Wikipedia 2005).
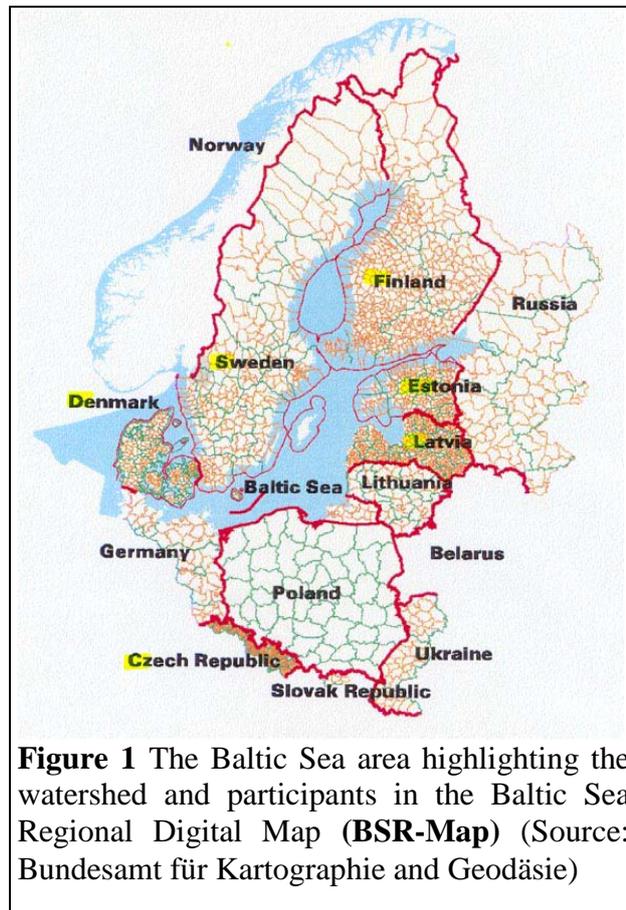

Figure 1 The Baltic Sea area highlighting the watershed and participants in the Baltic Sea Regional Digital Map **(BSR-Map)** (Source: Bundesamt für Kartographie and Geodäsie)

History

A crucial maritime connection from pre-history until today, consideration of the Baltic Sea's history help understand how the two main groups of names have persisted and been used interchangeably. An almost entirely land-locked sea, the Baltic is brackish, strained by industrial and agricultural pollutants and very limited water exchange. It is considered

to be the result of the last ice age with different exits during this period to the Atlantic. Its modern form somewhat resembles a riverbed; in the Pleistocene the river Eridanos was a major river in the area. Due to post-glacial rebound, the land in some areas of the Baltic Sea is rising up to one meter per century. The most pressing issues at the present arise from its precarious environmental health.

The Baltic Sea has been part of rich geographic exchanges. The name Baltic seems to be either related to the Latin Mere *Balticum* or to the German word belt, used for some of the Danish straits. The Romans referred, however, to the Baltic Sea as the *Mare Suebicum* or *Mare Sarmaticum*, drawing on the names of large tribes living on its shores or in Eastern Europe. Scandinavians referred to the Baltic as the Eastern lake before Christianization. The two types of names seem to have found common use by the 17th century. During the Viking era the sea was the place of many battles between Vikings and Slavs living in Pommerania as the Viking expanded their trade over Russian rivers to the Black Sea. After the 12th century, the area was forcibly Christianized in the northern crusades. The Hanseatic league became the predominant economic force in the area through the 15th century. This was followed by two centuries of Swedish influence and control of many of the borderlands, until German and Russian empires coordinated the partitions of Poland in the 18th century. Germany and Russia dominated the area through the middle of the 20th century. After World War II, it was one of many boundaries of the Cold War. After the Baltic states and Poland joined the European Union (EU) in 2004, all bordering states with the exception of Leningrad and Kaliningrad are parts of the EU.

That throughout this period the two dominant naming categories for the Baltic Sea seem to have been used without significant conflict suggests that the endonyms take on characteristics of synonyms in the trade jargons that characterize the relationships between various cultures in this part of the world. In other words, the usage in verbal and print communication of Baltic Sea was an advantage for trading with those cultures where this endonym dominated; the simultaneous and interchangeable use of East Sea pointed to an engagement with the other cultures. Using both names as synonyms, perhaps, was a form of taking on and assimilating exonyms as a means of representing one's internationalism and cosmopolitanism.
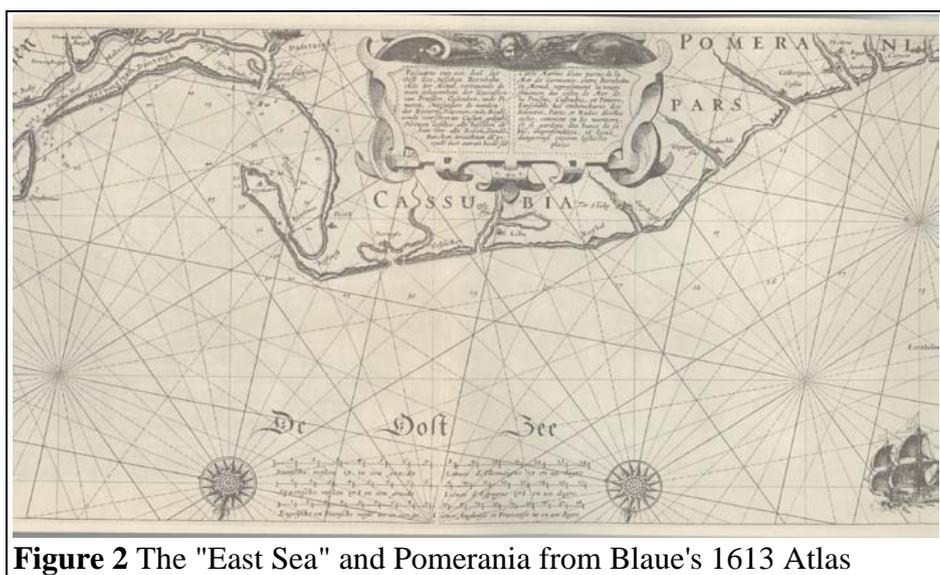

Figure 2 The "East Sea" and Pomerania from Blaue's 1613 Atlas

Cartographic Presentations

Cartographic products intended for a national market tend to utilize the endonym for the Baltic Sea. Presentations for international markets still ten to utilize the endonyms for the Baltic Sea, bays, and other features of the publisher's home, although some efforts to use the official national endonyms.

Figure 3 Danish overview map showing the "East Sea"

Figure 4 French atlas of Russia and CIS showing the "Baltic Sea"
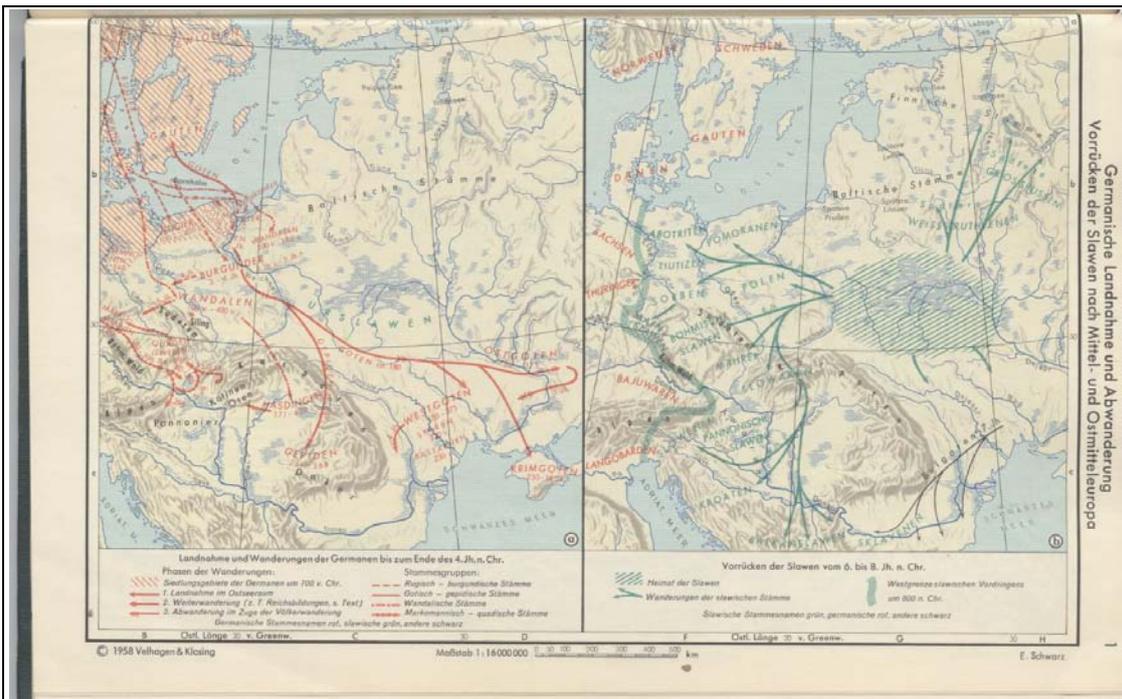

Figure 5 German maps showing the "East Sea"

On-line cartographic Representations

Most on-line cartographic representations reflect endonyms as well. In the only cases when bilingual naming occurs, it is limited to products for areas with non-Western character sets (Russian, Greek, Arabic, and Chinese).

Figure 6 Map from Weltatlas (www.welt-atlas.de)

Figure 7 Map from the MapMachine (NationalGeographic.com)
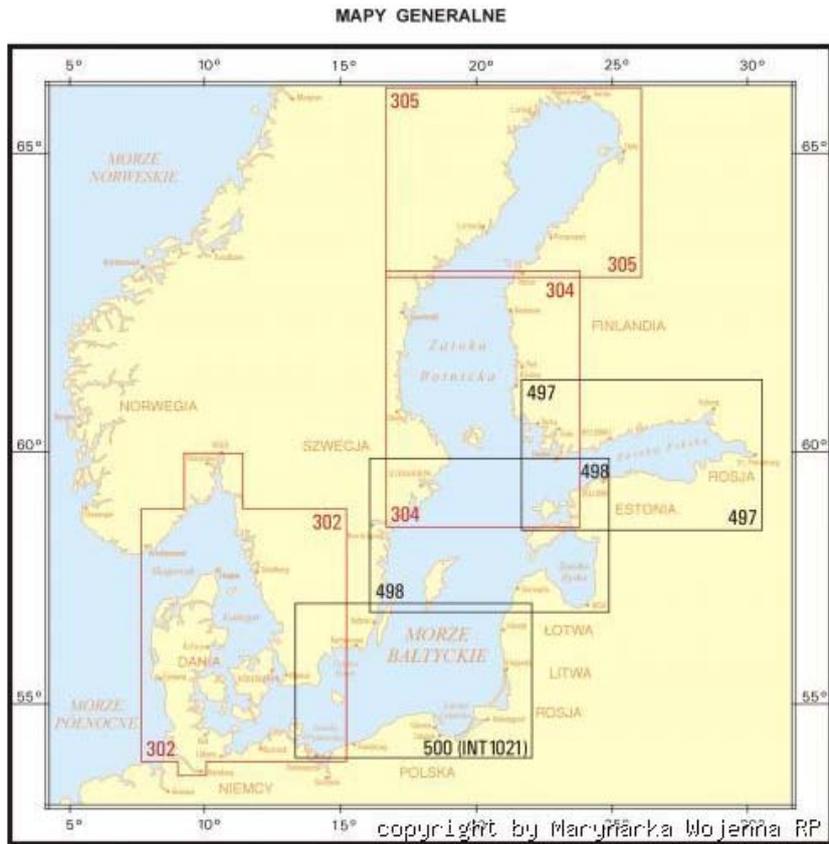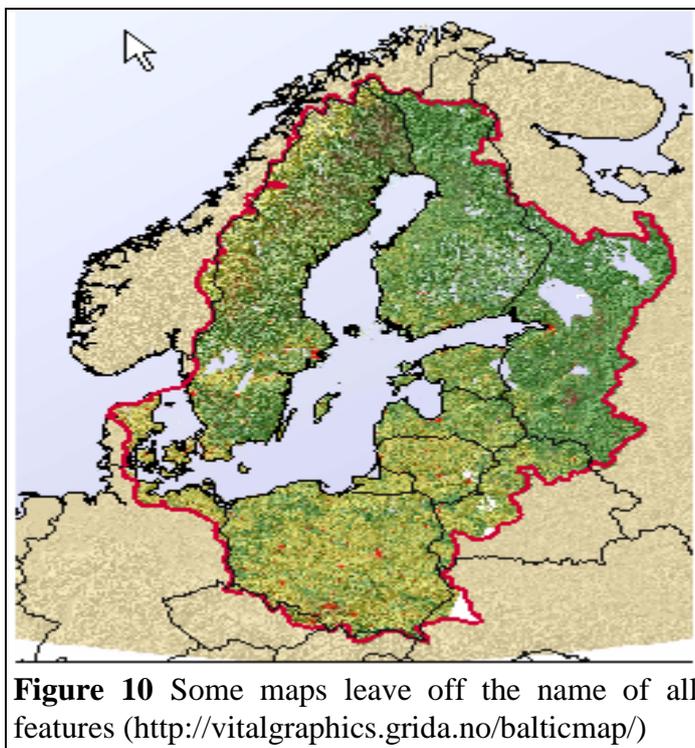

Figure 8 Map from Encarta (encarta.msn.com)

7

Figure 9 Map showing the "Baltic Sea"
(**http://bhmw.mw.mil.pl/index.php?akcja=mapypap**)

Figure 10 Some maps leave off the name of all features (http://vitalgraphics.grida.no/balticmap/)

Technological Possibilities

The UN Group on Geographic Names (UNGEGN) points to the possibilities of using technology to represent geographic features with multiple names. The potential is there, but uses appear to be very limited among commercially-orientated publishers and web sites.

Three basic possibilities for implementing multiple names simultaneously, for example exonyms and endonyms) exist: placing both names on the map or screen, using user information to determine the name, or adding roll-over features. Combinations of these with animations would open up multiple visualization capabilities.

Exonyms and Endonyms Together

Placing both names on the map or screen duplicates print publications. This seems easy to use, but due to variable presentation scales can be quite complicated for digital visualizations of maps. These complexities would greatly limit the utility of this approach except for on-line maps using a fixed page size.

User Information

By using user information, the names used on an on-line map could correspond to the user's most likely endonyms, e.g., a user accessing a EU website from Germany would find all names uses the official German endonyms and exonyms. This would be the most flexible solutions, but as with the previous approach, could run into space and semantic limitations.

Using user information could be aided by using cookies.

Roll-overs

The third approach allows users to interact with names. By rolling the cursor over a name, a user would see either the exonym or endonym, depending on the location of the geographic feature. For example, an English language map of the world may indicate the names of oceans, seas, and countries using the English exonyms. By moving the mouse cursor over the name of a feature the user could see the endonym, e.g., the text Germany would change to Deutschland. For pedagogical purposes, this functionality could aid the development of more multi-lingual understanding and appreciation of other cultures.

Perspective: Other Issues?

Given that these technologies exist, it may be surprising that so few on-line maps and atlases embrace the possibilities. Obviously, other issues, mainly cultural, limit their adoption. First, maps and geographic information increasingly play a very special role in how people know the world. No single person has yet experienced all of Europe, Asia, or North America. Our geographic understanding of these places is developed and mediated by maps. Changing the names on maps is altering the representation of that knowledge of

the world and reducing most peoples' ability to associate their imagination of a place with its geographic location. Reliance on exonyms and endonyms enhances their semantic identity with the world. Those people who move between cultures rely on their specialized knowledge to translate between different cultures and make sense out of these relationships.

One's semantic identity clearly plays a key role in how people identify with their homelands. The names on a map connect to imaginations and experiences of the places. "Geographical names from one's own language region are a treasure-trove of knowledge about a given nation's past, of former settlement relations, expressed values and of material and spiritual culture" (GUGIK 2001). For those people who have experienced and have enough knowledge of another language, the use of multiple language designations can add to the richness of making these associations.

These issues create impediments to standardization and clearly limit the number and types of cartographic products that can benefit from the use of multiple names. Unification, by any means (Kadmon 2004) seems to offer help only for those institutions and groups requiring coordination of geographic names to fulfill their functions and mandates. The limits of standardization will always make the use of multiple names an attractive option. Today's GIS technology does make it possible for reflecting multiple cultural exonyms and endonyms, but unless needs for multi-lingual communication increase, the application of these technological capabilities is likely to be limited.

References

GUGIK. 2005. *Geographical names in a nation's culture* [html] 2001 [cited 11Sep2005 2005].
Kadmon, Naftali. 2004. Bi- and Multi-Lingual Marine and Lacustrine Names – Consent and Dissent. Paper read at The Tenth International Seminar on the Naming of Seas: Special Emphasis Concerning International Standardization of the Sea Names, November 4-6, 2004, at Paris.
Wikipedia. 2005. *Baltic Sea* [html] 2005 [cited 11Sep2005 2005]. Available from http://en.wikipedia.org/wiki/Baltic_sea.