

## GEOGRAPHICAL NAMING IN DIGITAL ERA

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At present we rather easily use digital maps in many spheres of life – let's remember Google Earth, for example. But as for the use of place names we by tradition rely on paper media. So, if different languages are used, we apply different names to geographical objects - Schweiz, Suisse, Svizzera, Switzerland, etc. Sometimes this is really confusing when even the ambassador doesn't recognize the name of his own country, as in the case of Cote d'Ivoire (Ivory Coast – in English) (Берег Слоновой Кости [Bereg Slonovoj Kosti] – in Russian), and one could multiply such examples. Still greater problems exist for extensive water objects washing the coast of different countries which use own names for them, for example, Persian or Arabic Gulf, Japan or East Sea, Baltic Sea or Ostsee (East Sea in German) and Itämeri (East Sea in Finish [with western location of the sea from Finland]). Even with the help of national catalogs, bases and banks of place names and gazetteers, including the best examples, such as American Geographic Names Information Systems (including The National Gazetteer of the United States of America and National Digital Gazetteer), Canadian Geographical Names and EuroGeoNames, we couldn't solve this problem as it has many aspects – linguistic, political, cultural and technical. Moreover, it is necessary to notice that in using this or that name there is a hidden aspiration to designate the accessory, sovereignty or, at least, moral protection over territories (water areas) that sometimes leads to serious military conflicts – as it has happened between Argentina and Great Britain. Is it possible to find a civilized decision in such cases?

It seems to us it is necessary to expand possibilities of work with place names, first of all in the framework of Global Spatial Data Infrastructure. Users should receive much more data, not only names of the objects used in different languages and in different countries, but also available information on the origin of names, their dualities (for example, Falkland Islands or Islas Malvinas), the reasons of such duality (for example, discovery by foreign explorers and assignment of a new name along with already existing local name), etc. At that reverse replacement has been occurred. Man may remember mass renaming after liberation of African countries. International community (in particular official UN bodies) try to regulate this process, but nevertheless many disputable (for different countries) names still exist, for example Persian or Arabic Gulf, Japan or East Sea, Falkland Islands or Islas Malvinas. In this cases the variant of place-name reflects aspiration to denote sovereignty or protection over territory (area of water),

that may sometimes cause a military conflicts – such as the war between Argentina and Great Britain. Does civilized decision possible in such cases? Let's consider the last example. Both names Falkland - Malvinas Islands exist simultaneously on maps printed in many countries, sometimes together with special mark (disputable territories).

Such questions need a special decision in times when computer maps have been used more and more. Catalogues of place-names have been created in many countries, so it is possible to store all names which have any geographic object. Than characteristics need which will describe time period when a place-name was used, description – why a place-name changed (although different opinions are possible) and so on? But nevertheless the reader of computer map will receive much more information to draw his own conclusion. It will be timely to make this work at present time, when creation of national and international regional spatial data infrastructures (SDI) is going on at full steam. After USA projects of SDI becomes incarnates in a number of international and national organizations, such as Global SDI (GSDI), Canadian SDI (CSDI), SDI of Australia and New Zealand (ASDI), Asian-Pacific SDI (APSDI), European national initiatives in frames of Paneuropian (EUROGI). Basic spatial information in SDI usually understand as collection of “basic”, “fundamental”, the most needed layers and groups of GIS, with content corresponding with basic map. Moreover, the layer of place-names should be one of it's main layers, and this layer should be informative enough, permit use plurality of place-names, and inform in details about them.

Moreover, subsystem of place-names sooner or later will contain elements of intellectuality. Let's, for example, analyze the next series of place-names: Cameroon, Chad, Congo, Denmark, Djibouti, Gambia, Georgia, Jordan and Nicaragua. Of cause, every geographer can says that this is countries enumeration, but the same enumeration may be transformed in the way when the same place-names will mean:

- a) rivers – Congo, Gambia, Jordan, Danube, Mississippi, Nile;
- b) lakes – Chad, Nicaragua, Victoria, Baikal;
- c) straights – Denmark, Georgia, Gibraltar, Dardanelles, Magellan, Dover, Cook, Davis;
- d) volcanoes – Cameroon, Etna, Popocatepetl;
- e) cities – Djibouti, Moscow, London.

At this time, because of another neighborhood we will give to place-names other meaning, at that this notional branching may be continued. Let's consider rivers. We will add Albany, Arkansas, Churchill, Colorado, Columbia, Connecticut, Delaware, Humboldt, Illinois, Kabul, Mississippi, Ohio, Orange, Sabine, Salmon, Salt, Steward, Swan, White in addition to earlier mentioned. Among these place-names are: a) cities - Albany, Columbia, Delaware, Kabul, Orange, b) states - Arkansas, Colorado, Connecticut, Delaware, Illinois, Mississippi, Ohio, and

if we want get out of place-names multitude, than by adding Bismarck, Clinton, Lincoln, Washington to a Churchill river we receive a number of politics. Here we can also find a list of cities (Bismarck, Clinton, Lincoln, Washington). If we group cities in other way (Lincoln, Mercedes, Toyota) together with Ford and Volkswagen anybody says that this is car marks. Cities as Zanzibar, Grenada together with Christmas turn into the islands, but Christmas itself together with Easter и Annunciation are holydays. Cape May together with January, February and so on are months, and city Leon combined with tiger and leopard are predators. If you turn to the list of rivers mentioned in the beginning of this paragraph you can easily find other continuations. Anybody can easily define sense of a list of names, classify them, the same must do heuristical program. In this case a system of place-names will use right notional association, which should be used and taken into account when plurality of place-names occurred. A reader can test all existing kinds of place-names translation, search notional associations, select needed material connected with history of place-names. In other words, technological progress lets us describe geographical objects in more ways, using for their description all that humankind collect through the ages.

What can we suggest to solve such collisions? Let's discuss only one example: Japan and East Sea. There are rather many such names of water objects derived from the name of the people or the country: Indian Ocean, to begin with, and also Norwegian, Philippine, East - and South-Chinese seas, the Mexican and Guinean gulfs, the Taiwan, Mozambique and Gibraltar passages, the Somali, Guatemala, Peruvian depressions etc. In most cases they don't cause disputes but what could be suggested if they arise anyhow.

First of all, it is necessary to study the historical background, both from the national and international points of view. For example, supporters of the name East Sea have organized a series of international discussions held in Seoul (1995-2001 and 2006), Vladivostok (2002), Shanghai (2003), Paris (2004), Washington (2005), Wien (2007), Tunis (2008), Sydney (2009), the Hague (2010) and Vancouver (2011) and have collected an extensive material on this problem. Perhaps, it will be useful to hold such discussions in the region itself (for example, on board of a ship) with participation of Japanese, Korean, Chinese, Russian and other experts trying to compare different points of view and find alternatives.

It is possible to create a portal where any interested person could find all accessible data, express the opinion and offer the solution of the problem.

It is desirable to initiate the creation of toponymical commissions within the framework of international organizations, such as ICA, IGU, Digital Earth.

Alternative names could be suggested for disputable objects, as for example the Korean-Japanese Sea, the Oriental Sea .... Discussing the problem in social networks is also possible.

